PROGRAMME QUALITY HANDBOOK

2024 – 25

BSc (Hons) Digital Technologies

Welcome and Introduction to BSc (Hons) Digital Technologies

This programme has been designed to equip you with the skills and knowledge base required to work in your chosen specialism or other graduate opportunities. It is also a platform from which you can undertake additional vocational and academic qualifications.

This Programme Quality handbook contains important information including:
- The approved programme specification
- Module records

Note: The information in this handbook should be read in conjunction with the current edition of:
- Your Institution & University Student Handbook which contains student support based information on issues such as finance and studying at HE
- University of Plymouth's Student Handbook available at:
  https://www.plymouth.ac.uk/your-university/governance/student
- https://www.plymouth.ac.uk/your-university/governance/student-handbook

University of Plymouth

Academic Partnership

University College Jersey – Highlands College Jersey

Programme Specification

BSc (Hons) Digital Technologies

1. **BSc (Hons) Digital Technologies**

   UCAS code – Not applicable

   HECOS code – CAH11

2. **Awarding Institution:** University of Plymouth

   Teaching institution(s): University College Jersey – Highlands College Jersey

3. **Accrediting body**(ies)

   University of Plymouth

   Summary of specific conditions/regulations – N/A

   Date of re-accreditation – N/A

4. **Features of the Programme and the Student Experience**

This Programme has been designed to provide students with the knowledge and industry skillset to be effective graduate members of the workforce in the computing and digital sectors.

Students will have the opportunity to develop their analytical and critical thinking skills through current research. These will be underpinned by practical episodes focused on current industry practices.

The computing and digital sector has been one of the leading growth industries on the Island for a number of years with a 25% increase in computer and digital relevant sectors

over the last 5 years. This includes a wide range of services from cyber security through to games development. The BSc (Hons) Digital Technologies course aims to develop students to be effective in these potential areas and also prepare them for further study including qualifications such as Masters degrees.

Graduates may go on to future roles (not limited to):

- Cyber Security Analyst
- Security Administrator
- Cloud Developer/Administrator
- Software Developer
- Web Designer/Developer

The Programme is delivered by a combination of learning modes in Jersey by Jersey-based staff, with facilities and learning and student support services provided by UCJ. Its content enables students to apply a range of perspectives from computing and digital to initiatives, industry and policy.

The UCJ Computing teaching team includes a range of lecturers, appropriately qualified and all with computing and digital industry experience.

The module content has been designed through consultation with key representatives from the computing and digital industry including C5 Alliance, Government of Jersey, Sure, Prosperity 24/7, Logicalis and Jersey Police. These key partners are also the primary employers of UCJ Computing graduates.

UCJ Computing staff and students have direct access to learning spaces such as classrooms and library space at UCJ as well as utilising the co-working spaces of Digital Jersey Hub and Digital Jersey X. (Digital Jersey is the government-backed economic development agency with responsibility for the sector) These spaces are used by students as a place to develop as a team and foster communication with current industry employers.

UCJ resources include equipment for networking, games development and access to cloud providers to develop a wide range of cloud-based solutions.

5. Relevant QAA Subject Benchmark Group(s)

https://www.qaa.ac.uk/docs/q__aa/sbs/sbs-computing-22.pdf?sfvrsn=ebb3dc81_2

The following statements have been selected from 1.6, 1.10, 1.11 and 2.17 from the Subject Benchmark Groups with relation to what could be included within a successful Level 6 provision.

1.6

Computing promotes innovation and creativity. It requires a disciplined approach to problem solving. It approaches design and development through selection from alternative possibilities justified by carefully crafted arguments. It controls complexity first through abstraction and simplification, and then by the integration of components. Above all, it is a product of human ingenuity and provides major intellectual challenges, yet this limits neither the scope of computing nor the complexity of the application domains addressed.

1.10

Computing degrees often integrate a period of time working within a company or similar organisation, as an intern or placement student. Placements offer the opportunity for students to apply and validate their learning and skills in the context of the world of employment and to provide early exposure to the development of professional competence as enshrined within the skills expressed in the particular course of study

1.11

The pervasiveness of the computing discipline can enable a curriculum which is relevant and authentic, relates to real and current challenges, and able to promote greater social justice and equity. The curriculum should also speak to and be valued by every student, while addressing issues that are important to them. Culturally responsive computing approaches that recognise and value students' cultures can bring about ways for students to reflect and engage with issues of representation, exclusion, disadvantage and

structurally embedded advantage. The curriculum should engage students in meaningful, culturally-contexed practical tasks in a welcoming and collaborative environment, as well as ensuring that technological solutions do not emerge with unintentional bias and limited insight into the diversity of the people who will develop and use them.

2.17 Computing courses can benefit from other collaborations with external organisations in activities such as curriculum design, talks, workshops, projects and visits. An effective external/industry advisory board can help ensure courses are relevant to the needs of the computing sector and advise on the development of employability skills.

4.6 Threshold

On graduating with an honours degree in computing at threshold level, students should be able to:

i. Demonstrate a requisite understanding of the main body of knowledge for their subject.

ii. Understand and apply essential concepts, principles and practices of the subject in the context of well-defined scenarios, showing judgement in the selection and application of tools and techniques.

iii. Be able to demonstrate judgement, critical thinking and problem-solving skills to solve well-specified problems, to create computational artefacts with a degree of independence.

iv. Demonstrate the ability to undertake problem identification and analysis to appropriately design, develop, test, integrate or deploy a computing system and any associated artefacts; understand the relationship between stages.

v. Demonstrate the ability to work in an effective manner, including as a member of a team, making use of tools and techniques to appropriately communicate, manage tasks and plan projects under guidance.

vi. Identify appropriate practices and perform work within a professional, legal and ethical framework – including data management and use, security, equality, diversity and inclusion (EDI) and sustainability – in the work that they undertake.

4.6 Typical

On graduating with an honours degree in computing at typical level, students should be able to:

i.   Demonstrate a sound understanding of the main body of knowledge for their subject and be able to exercise critical judgement in the use of that knowledge.

ii. Critically analyse and apply concepts, principles and practices of the subject in the context of loosely defined scenarios, showing effective judgement and adaptability in the selection and use of tools and techniques.

iii. Be able to demonstrate detailed judgement, critical thinking and problem-solving skills to solve both well-specified and loosely defined problems, to create appropriate computational artefacts.

iv. Demonstrate the ability to undertake problem identification and analysis to appropriately design, develop, test, integrate or deploy a complex computing system and any associated artefacts; understand the relationship between stages and be able to demonstrate related problem-solving and evidence-informed evaluative skills.

v.   Demonstrate the ability to work in a proactive and effective manner, including as a member of a team, making good use of tools and techniques to successfully communicate, manage tasks and plan projects with minimum guidance.

vi. Identify appropriate practices and effect principled solutions within a professional, legal and ethical framework to address core considerations – including data management and use, security, equality, diversity and inclusion (EDI) and sustainability – in the work that they undertake.

4.6 Excellence

On graduating with an honours degree in computing at excellence level, students should be able to:

i.   Demonstrate an exceptional understanding of the main body of knowledge for their subject and be able to exercise insightful and critical judgement in the use of that knowledge. Be creative and innovative in the application of the principles covered in the curriculum, and be able to go beyond what has been taught in classes.

ii.   Critically analyse and apply a wide range of concepts, principles and practices of the subject in the context of open scenarios, showing refined judgement and adaptability in the selection and use of tools and techniques.

iii. Be able to demonstrate sophisticated judgement, critical thinking, research design, and well-developed problem-solving skills with a high degree of autonomy, and to create highly effective computational artefacts across complex and unpredictable circumstances.

iv.   Demonstrate the ability to undertake problem identification and analysis to appropriately design, develop, test, integrate or deploy a highly complex computing system and any associated artefacts; deeply understand the relationship between stages and be able to demonstrate related sophisticated problem-solving and evidence-informed evaluative skills.

v.   Demonstrate the ability to work in a highly proactive and accomplished manner, including as a leading member of a team, making excellent use of tools and techniques to proficiently communicate, manage tasks and plan projects with minimum guidance.

vi.   Identify best-of-kind practices and effect highly principled solutions within a professional, legal and ethical framework to consistently address a wide breadth of relevant considerations – including data management and use, security, equality, diversity and inclusion (EDI) and sustainability – in the work that they undertake.

These benchmark statements and programme aims and outcomes also bridge with the SEEC Level 6 descriptors focused around independence, dealing with unpredictability, introduction to specialisation, synthesis and interpersonal skills. These can be found at
https://seec.org.uk/wp-content/uploads/2016/07/SEEC-descriptors-2016.pdf

Distinctive features of the Programme

1.   The degree has been designed collaboratively with local industrial partners to ensure that students study a comprehensive program of relevant industrial topics. Feedback on local industry requirements and current practices are

collected and collated from participating businesses during the HND work placement selection process and post work placement feedback.

2. Students are encouraged to showcase innovation/future developments within the computing and digital industry.

3. A flexible degree with the ability to tailor the individual honours project to a specialism of the individual learner's choice.

4. A final placement is offered with the company students have previously worked with on the HND course – this is to provide a platform to research their honours project and to continue their relationship and development with a potential employer.

6. Programme Structure

This Stage 3 Programme comprises the following core modules (See Appendix 1 for the Definitive Module Records):

Core Modules:

Module Code	Module Name	Credits
HIGH3308	Individual Honours Project (Industry Product Development and Innovation)	40
HIGH3309	FinTech Security	20
HIGH3310	Advanced Mobile Development	20
HIGH3311	Cloud Computing Administration	20
HIGH3312	Modern Web Applications	20

Students will be able to choose between a full-time and a part-time programme of study. The programme will run on a two semester model:

Semester 1 – September to January

Semester 2 – February to May

Full-Time Programme (one year)

Module Code	Module Name	Semester	Credits
HIGH3308	Individual Honours Project (Industry Product Development and Innovation)	1-2	40
HIGH3309	FinTech Security	2	20
HIGH3310	Advanced Mobile Development	1	20
HIGH3311	Cloud Computing Administration	1	20
HIGH3312	Modern Web Applications	2	20

Part-Time Programme(two years)

Year 1

Module Code	Module Name	Semester	Credits
HIGH3311	Cloud Computing Administration	1	20
HIGH3310	Advanced Mobile Development	1	20
HIGH3312	Modern Web Applications	2	20

Year 2

Module Code	Module Name	Semester	Credits
HIGH3308	Individual Honours Project (Industry Product Development and Innovation)	1-2	40
HIGH3309	FinTech Security	2	20

7. Programme Aims

This Programme aims to provide students who are resident in Jersey with an opportunity to undertake and study a range of Level 6 modules in Computing offered in Jersey. It is intended:

1. to provide students with a broad education in Computing with a focus on understanding and analysing problems, designing solutions and managing implementation;

2. to ensure students have access and exposure to latest industry developments and to equip the students to adapt and learn new skills as the computing and digital industry evolves throughout their careers.

3. to develop a range of intellectual and research skills, including critical thinking skills, report writing, presentations and interpersonal and independent working skills, all of which will have relevance for a variety of employment opportunities in the modern workplace.

8. Programme Intended Learning Outcomes

8.1. Knowledge and understanding

On successful completion graduates should have developed the ability to:

1. Use research strategies and approaches in order to solve problems and generate ideas

2. Build security into all aspects of computer and network usage

3. Use industry standard tools and software in the practical approaches to business problems

4. Understand a range of computing specialisms and the ability to make an informed career choice on completion of the course

8.2. Cognitive and intellectual skills

On successful completion graduates should have developed:

1. the ability to integrate a variety of problem-solving approaches and critically apply them to relevant problems

2. the ability to make realistic recommendations, cognisant of the latest developments and research impacting on the computing and digital industry

3. critically evaluate whether solutions meet specified requirements

8.3. Key and transferable skills

On successful completion graduates should have developed the ability to:

1. construct well argued, referenced documents, underpinned by relevant ideas, that address a given problem with relevant arguments

2. undertake effective project management and make best use of the skills and knowledge of professionals to research and collaborate

3. manage their own learning and increase their independence as reflective learners through using feedback effectively

8.4. Employment related skills

On successful completion graduates should have developed:

1. Interpersonal skills through collaboration with members of industry and reflecting on and evaluating contributions in workplace settings

2. Practical experience of stakeholder engagement, problem solving and industry relevant environments within the computing and digital industry sector

3. An understanding of the current industry climate in terms of current and future developments and key skills required for a preferred career path

8.5. Practical skills

On successful completion graduates should have developed:

1. specify, design and construct reliable, secure and usable computer-based solutions

2. plan and manage projects to deliver computing solutions within constraints such as requirements and timescale

3. recognise and respond to any security risks and safety aspects that may be involved in the deployment of computing solutions across all of the course content

4. critically evaluate and analyse provided scenarios and problems and devise suitable solutions, within the given constraints

9. Admissions Criteria, including APCL, APEL and Disability Service arrangements

This is a Level 6 top-up programme therefore candidates would be expected to have achieved a Higher National Diploma in a related field or the equivalent of Level 5 study or significant work experience in a related field at a managerial, delivery or strategic level.

All applicants must have GCSE (or equivalent) Maths and English at Grade C or above.

Entry Requirements for BSc (Hons) Digital Technologies	
Higher National Diploma	Candidates are interviewed before an offer is made. Pass profile.

Higher Education Level 4 and 5	Candidates are interviewed before an offer is made. Successful completion of two years equivalent higher education experience in a relevant field at Level 4 and 5.
Relevant work experience – Accredited Prior Learning.	Candidates are interviewed before an offer is made. At least 3 years work experience at a high level in a related field e.g. software development, support desk, analyst, cyber security, networking, etc. This will represent Accredited Prior Experiential Learning and proof of working knowledge of industry relevant skills which can be used as entry criteria. This will be considered and approved by the UCJ admissions team.

Students that have a disability will be provided with the appropriate support through Highlands Learning Support team.

Classes will be made physically accessible to all students. This includes but not limited to classrooms with wheelchair access, support for students with learning needs e.g. dyslexia, Irlens syndrome.

10. **Non Standard Regulations**

N/A

11. **Transitional Arrangements for existing students looking to progress onto the programme**

University College Jersey recognises that the majority of students progressing on to Level 6 top-up year will be internal HND Computing students. They will have experience of criteria-based grading and may lack knowledge of the University of Plymouth assessment process. Therefore students will be provided with study skills sessions where the assessment process is made clear to the students before they apply to the top-up year and during the first term of their studies.

Appendices Programme Specification Mapping (UG) – core modules

Appendix 1: Programme Specification Mapping (UG): module contribution to the meeting of Programme Intended Learning Outcomes. CORE MODULES: tick those Award Learning Outcomes the module contributes to through its assessed learning outcomes. Insert rows and columns as required.

Core Modules		Programme Intended Learning Outcomes contributed to (for more information see Section 8)																			Compensation Y/N	Assessment Element(s) and weightings [use KIS definition] E1- exam E2 – clinical exam T1- test C1- coursework A1 – generic assessment P1 - practical
		8.1 Knowledge & understanding				8.2 Cognitive & intellectual skills				8.3 Key & transferable skills				8.4 Employment related skills				8.5 Practical skills					
		1	2	3	4	1	2	3		1	2	3		1	2	3		1	2	3	4		
Level 6	HIGH3308	√		√		√	√			√	√	√		√	√			√	√			N	C1 60% P1 40%
	HIGH3309	√	√	√	√	√	√	√		√		√			√	√		√		√	√	Y	C1 100%
	HIGH3310	√		√	√	√	√	√		√		√			√	√		√			√	Y	C1 100%
	HIGH3311	√	√	√	√	√	√			√		√			√	√		√		√	√	Y	C1 100%
	HIGH3312	√	√	√	√	√	√	√		√		√			√	√		√			√	Y	C1 100%
Level 6 LOs																							
Confirmed Award LOs																							

UNIVERSITY OF PLYMOUTH MODULE RECORD

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty/AP Quality Procedures for approval and issue of new module code.*

MODULE CODE: HIGH3308   **MODULE TITLE: Individual Honours Project**
CREDITS: 40   **FHEQ LEVEL: 6**   **HECOS CODE(S)** 110102
PRE-REQUISITES: None   **CO-REQUISITES: None**   **COMPENSATABLE: N**
SHORT MODULE DESCRIPTOR:
The aim of the module is to highlight the culmination of skills and learning that students have attained during their program – work placements can be utilised as an initial research area to identify industry practices and challenges. The overarching goal is application of relevant skills to a specific, significant challenge or problem in an area that students are particularly interested in.

ELEMENTS OF ASSESSMENT *[Use HESA KIS definitions]* – see *Definitions of Elements and Components of Assessment*					
E1 (Examination)		**C1** (Coursework)	60%	**P1** (Practical**)**	40%
E2 (Clinical Examination)		**A1** (Generic assessment)			
T1 (Test)		**O1**(online open book assessment)			

SUBJECT ASSESSMENT PANEL to which module should be linked: Computing

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
This module will enable students to:
- Undertake a rigorous study on a theme which they have identified, using effective research skills.
- Select and apply research methodology to a research question
- Demonstrate valid data collection, present results and analyse in relation to the research question and academic research
- Develop, present and conclude an innovative solution to a business/computing problem and the limitations of the solution
- Effectively manage a project and its various stages and develop communication skills with a range of stakeholders

ASSESSED LEARNING OUTCOMES: (additional guidance below; please refer to the Programme Specification for relevant Programme Intended Learning Outcomes.

At the end of the module the learner will be expected to be able to:

Assessed Module Learning Outcomes (ALOs)	**Programme Intended Learning Outcomes (PILOs) contributed to**

1. Undertake a rigorous study on a digital theme which they have identified, using effective research skills.	8.1.1, 8.3.1, 8.4.1, 8.4.2,
2. Select and apply research methodology to a research hypothesis.	8.1.1, 8.3.1,
3. Evidence valid data collection, present development area(s), and analyse in relation to the research hypothesis, academic research, and current links with industry.	8.2.2, 8.3.1, 8.3.3, 8.4.1, 8.4.2,
4. Provide and present an effective product solution, bringing together the key findings of the study, the implications for the given theme/field and the limitations of the project conducted.	8.1.3, 8.2.1, 8.4.2, 8.5.1,
5. Effective management of the project including time management, communication with key stakeholders (both internal and external) and development stages.	8.3.2, 8.5.2

DATE OF APPROVAL: 10/08/2022	**FACULTY/OFFICE: UPC**
DATE OF IMPLEMENTATION: 09/2022	**SCHOOL/PARTNER:** University College Jersey
DATE(S) OF APPROVED CHANGE: XX/XX/XXXX	**SEMESTER: Semester 1 and 2**

Notes:

Additional Guidance for Learning Outcomes:

To ensure that the module is pitched at the right level check your intended learning outcomes against the following nationally agreed standards

- Framework for Higher Education Qualifications http://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf
- Subject benchmark statements https://www.qaa.ac.uk/quality-code/subject-benchmark-statements
- Professional, regulatory and statutory (PSRB) accreditation requirements (where necessary e.g. health and social care, medicine, engineering, psychology, architecture, teaching, law)

QAA Quality Code https://www.qaa.ac.uk/quality-code

Items in this section must be considered annually and amended as appropriate, in conjunction with the Module Review Process. <u>Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students.</u> Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2024-25   **NATIONAL COST CENTRE: 121**
MODULE LEADER: Paul Spencer   **OTHER MODULE STAFF: N/A**

Summary of Module Content

Projects are very varied in the topic they address and in the type of approach required. Learners will gain an in-depth knowledge and understanding of the chosen area of specialisation. The successful completion of the project will require the following:

- Project planning
- Quantitative and qualitative research methods
- Primary Data collection methods e.g. Interview skills, Questionnaire design, Observation, work place investigation.
- Secondary Data collection methods
- Data analysis
- Presentation of product development proposal
- Development of product
- Analysis & evaluation of final product and future developments

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*		
Scheduled Activities	**Hours**	**Comments/Additional Information (briefly explain activities, including formative assessment opportunities)**
Lecture	27	18 x 1.5 hour sessions - Lecture style delivery with group exercises
Supervised workshop	21	14 x 1.5 hour sessions - Feedback from tutor. Q&A with tutor.
Guided independent study	337	This includes; directed reading, independent reading, completion of formative assessment tasks and the development and completion of course work.
Project supervision	15	10 x 1.5 hour sessions - Formative feedback on dissertation.
Total	**400**	**(NB: 1 credit = 10 hours of learning; 10 credits = 100 hours, etc.)**

SUMMATIVE ASSESSMENT

Element Category	Component Name	Component Weighting
Coursework	Report (ALO 1-3 and 5)	100%
Practical	Presentation (ALO 3 and 4)	100%

REFERRAL ASSESSMENT

Element Category	Component Name	Component Weighting
Coursework	Report (ALO 1-3 and 5)	100%
Coursework (in lieu of original assessment)	Presentation (ALO 3 and 4)	100%

To be completed when presented for Minor Change approval and/or annually updated	
Updated by: Date: XX/XX/XXXX	**Approved by**: Date: XX/XX/XXXX

UNIVERSITY OF PLYMOUTH MODULE RECORD

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty/AP Quality Procedures for approval and issue of new module code.*

MODULE CODE: HIGH3309   **MODULE TITLE:** FinTech Security
CREDITS: 20   **FHEQ LEVEL:** 6   **HECOS CODE(S)** 110103
PRE-REQUISITES: None   **CO-REQUISITES:** None   **COMPENSATABLE: Y**
SHORT MODULE DESCRIPTOR:
This module examines the dilemma businesses are facing with the transition from traditional technologies and practices used within the financial sector into the modern cloud-based era. Students will develop an understanding of the potential threats and challenges faced with migrating to the cloud. Students will setup, configure, and secure a cloud-based system and will provide recommendations for maintaining its security.

ELEMENTS OF ASSESSMENT *[Use HESA KIS definitions] – see* *Definitions of Elements and Components of Assessment*					
E1 (Examination)		**C1** (Coursework)	100%	**P1** (Practical**)**	
E2 (Clinical Examination)		**A1** (Generic assessment)			
T1 (Test)		**O1(online open book assessment)**			

SUBJECT ASSESSMENT PANEL to which module should be linked: Computing

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
This module will enable students to:
- Develop a comprehensive understanding of the financial sectors security concerns and practices
- Develop a comprehensive understanding of current security threats and be able to implement solutions within a cloud environment
- Reflect on your work and be able to suggest good security practices, both current and future

ASSESSED LEARNING OUTCOMES: (additional guidance below; please refer to the Programme Specification for relevant Programme Intended Learning Outcomes.

At the end of the module the learner will be expected to be able to:

Assessed Module Learning Outcomes (ALOs)	Programme Intended Learning Outcomes (PILOs) contributed to
1. Evidence a comprehensive understanding of the transition of technologies and practices used throughout the financial sector, investigating concerns with modern practices	8.1.4, 8.3.1, 8.4.3, 8.1.2, 8.3.1, 8.4.3,

2. Research and critically evaluate recent and emerging cyber security threats 3. Setup, configure, and implement security, on a cloud-based solution 4. Provide recommendations on how to secure and protect businesses from issues concerning cloud-based solutions	8.1.1, 8.1.3, 8.1.4, 8.2.1, 8.3.3, 8.4.2, 8.5.1, 8.5.4 8.1.2, 8.1.4, 8.2.1, 8.2.2, 8.2.3, 8.5.3, 8.5.4

DATE OF APPROVAL: 10/08/2022	**FACULTY/OFFICE:** UPC
DATE OF IMPLEMENTATION: 09/2022	**SCHOOL/PARTNER:** University College Jersey
DATE(S) OF APPROVED CHANGE: XX/XX/XXXX	**SEMESTER:** Semester 2

Notes:

Additional Guidance for Learning Outcomes:

To ensure that the module is pitched at the right level check your intended learning outcomes against the following nationally agreed standards

- Framework for Higher Education Qualifications http://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf
- Subject benchmark statements https://www.qaa.ac.uk/quality-code/subject-benchmark-statements
- Professional, regulatory and statutory (PSRB) accreditation requirements (where necessary e.g. health and social care, medicine, engineering, psychology, architecture, teaching, law)
- QAA Quality Code https://www.qaa.ac.uk/quality-code

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT

Items in this section must be considered annually and amended as appropriate, in conjunction with the Module Review Process. <u>Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students.</u> Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2024/25   **NATIONAL COST CENTRE: 121**
MODULE LEADER: Perry De Caux   **OTHER MODULE STAFF:** N/A

Summary of Module Content
- Theory of historical computer practices and technologies used in FinTech
- Examples of technologies used in the modern-era including cloud-based solutions
- Key issues relating to political, financial, legal, privacy, security, remote-working, and reputational concerns
- Assessment of cyber security threats involving endpoints, infrastructure, applications, and hacking
- Implement and secure a cloud-based solution for a business using various protection measures
- Principles for business migration to the cloud and how to obtain certification as a cloud provider
- Threat modelling approaches, tools, defensive tactics, and security technologies
- Designing a zero-trust network

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*		
Scheduled Activities	**Hours**	**Comments/Additional Information (briefly explain activities, including formative assessment opportunities)**
Lecture	30	20 x 1.5 hour sessions - Lecture style delivery with group exercises
Supervised workshop	12	8 x 1.5 hour sessions - Feedback from tutor. Q&A with tutor
Guided independent study	158	Directed reading and research; completion of formative assessment tasks; development and completion of course work.
Total	**200**	**(NB: 1 credit = 10 hours of learning; 10 credits = 100 hours, etc.)**

SUMMATIVE ASSESSMENT

Element Category	**Component Name**	**Component Weighting**

Coursework	Essay (ALO 1-2)	55%
	Screen-recording (ALO 3)	25%
	Reflective report (ALO 4)	20%
		100%

REFERRAL ASSESSMENT

Element Category	Component Name	Component Weighting
Coursework	Essay (ALO 1-4)	100%

To be completed when presented for Minor Change approval and/or annually updated	
Updated by: Date: XX/XX/XXXX	**Approved by**: Date: XX/XX/XXXX

UNIVERSITY OF PLYMOUTH MODULE RECORD

SECTION A: DEFINITIVE MODULE RECORD.

MODULE CODE: HIGH3310   **MODULE TITLE:**   Advanced Mobile Development
CREDITS: 20   **FHEQ LEVEL:** 6   **HECOS CODE:** 110104
PRE-REQUISITES: None   **CO-REQUISITES: None**   **COMPENSATABLE: Y**

SHORT MODULE DESCRIPTOR:
The module aims to cover no-code and low-code UI/UX design principles for mobile devices, mobile application development techniques, use of in-premises and cloud-based development tools, manual and automated testing strategies, and the evaluation of mobile apps. Students will work towards developing a cross-platform mobile app that targets platforms such as Android and IOS devices.

ELEMENTS OF ASSESSMENT					
E1 (Examination)		**C1** (Coursework)	100%	**P1** (Practical)	
E2 (Clinical Examination)		**A1** (Generic assessment)			
T1 (Test)					

SUBJECT ASSESSMENT PANEL to which module should be linked: Computing

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
This module will enable students to:
- Develop a comprehensive understanding of mobile app development especially with regards their design and development and the commercial and economic issues that need to be considered.
- Understand how to use cloud-based tools to develop and comprehensively test a mobile app.

ASSESSED LEARNING OUTCOMES:

At the end of the module the learner will be expected to be able to:

Assessed Module Learning Outcomes	Award / Programme Learning Outcomes contributed to
1. Discuss and critically evaluate the key design and development strategies, tools, and techniques for mobile app development	8.1.4, 8.2.2, 8.3.1
2. Discuss and critically evaluate the key commercial and economic issues related to mobile app development for a defined requirement	8.2.2, 8.3.1, 8.4.3
3. Use in-premises and cloud-based tools and resources to develop and document a mobile app that meets a defined requirement	8.1.1, 8.1.3, 8.2.1, 8.4.2, 8.4.3, 8.5.1, 8.5.4
4. Apply automated and manual testing techniques to test a mobile app and document the methods and results	8.2.3, 8.3.3

DATE OF APPROVAL: 10/08/2022	**FACULTY/OFFICE:** UPC
DATE OF IMPLEMENTATION: 09/2022	**SCHOOL/PARTNER:** University College Jersey
DATE(S) OF APPROVED CHANGE:	**SEMESTER:** Semester 1

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT

ACADEMIC YEAR: 2024-2025 **NATIONAL COST CENTRE: 121**
MODULE LEADER: Paul Spencer **OTHER MODULE STAFF: Christopher Talbot**

Summary of Module Content

- General In-Premises mobile app development techniques and tools
- Cloud based mobile app development tools, and PAAS
- Review and research existing mobile apps from public repositories (eg GitHub)
- Develop and document a new mobile app
- Software testing techniques and terminology
- Manual and automated testing of mobile apps
- Evaluating key commercial and economic issues related to mobile app development
- Evaluating mobile app development techniques

This module will require the use of sufficiently powerful laptop computers running Windows 10/11. Support for running virtual machines is required, as is use of software such as MS Visual Studio and/or Android Studio.

Cloud-based tools within cloud platforms such as Azure will also be used.

SUMMARY OF TEACHING AND LEARNING		
Scheduled Activities	**Hours**	**Comments/Additional Information**
Lecture	18	12 x 1.5 hour sessions - Lecture style delivery with group exercises
Supervised workshop	24	16 x 1.5 hour sessions - Individual research and development, supervised by tutor
Guided independent study	158	Directed reading and research; completion of formative assessment tasks; development and completion of course work.
Total	**200**	**(NB: 1 credit = 10 hours of learning; 10 credits = 100 hours, etc.)**

SUMMATIVE ASSESSMENT

Element Category	Component Name	Component Weighting
Coursework	Essay (ALO 1-2)	50%
	Formal report (ALO 3-4)	50%
		100%

REFERRAL ASSESSMENT

Element Category	Component Name	Component Weighting
Coursework	Essay (ALO 1-4)	100%

To be completed when presented for Minor Change approval and/or annually updated	
Updated by: Date:	**Approved by**: Date:

UNIVERSITY OF PLYMOUTH MODULE RECORD

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty/AP Quality Procedures for approval and issue of new module code.*

MODULE CODE: HIGH3311   **MODULE TITLE:** Cloud Computing Administration
CREDITS: 20   **FHEQ LEVEL:** 6   **HECOS CODE(S)** 110101
PRE-REQUISITES: None   **CO-REQUISITES: None**   **COMPENSATABLE: Y**

SHORT MODULE DESCRIPTOR:
This module examines current cloud computing infrastructure and the successful development and management of systems within this environment. Students will develop knowledge of the key cloud providers, key components of Cloud Computing Administration, development of a business standard cloud solution and have the opportunity to sit relevant cloud computing professional qualifications**.**

ELEMENTS OF ASSESSMENT *[Use HESA KIS definitions] – see Definitions of Elements and Components of Assessment*					
E1 (Examination)		**C1** (Coursework)	100%	**P1** (Practical**)**	
E2 (Clinical Examination)		**A1** (Generic assessment)			
T1 (Test)		**O1(online open book assessment)**			

SUBJECT ASSESSMENT PANEL to which module should be linked: Computing

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
This module will enable students to:
- Develop a comprehensive understanding of current cloud providers in relation to the local economy
- Develop an understanding of core features and important differences between cloud providers
- Develop and manage a cloud solution using a current cloud provider

ASSESSED LEARNING OUTCOMES: (additional guidance below; please refer to the Programme Specification for relevant Programme Intended Learning Outcomes.

At the end of the module the learner will be expected to be able to:

Assessed Module Learning Outcomes (ALOs)	Programme Intended Learning Outcomes (PILOs) contributed to
1. Critically evaluate current leading cloud providers in relation to key local industry contexts.	8.1.1, 8.3.1, 8.4.3 8.1.2, 8.1.4, 8.2.1, 8.4.3, 8.5.4

2. Understand the core solutions, management tools and security features of a cloud provider.	8.1.2, 8.1.3, 8.2.1, 8.2.2, 8.3.3, 8.4.2, 8.4.3, 8.5.1, 8.5.3, 8.5.4
3. Plan and implement a business level solution to meet a defined requirement.	8.2.2, 8.3.1, 8.4.3
4.Critically evaluate the key cloud cost factors and management of these factors.	

DATE OF APPROVAL: 10/08/2022	**FACULTY/OFFICE:** UPC
DATE OF IMPLEMENTATION: 09/2022	**SCHOOL/PARTNER:** University College Jersey
DATE(S) OF APPROVED CHANGE: XX/XX/XXXX	**SEMESTER:** Semester 1

Notes:

Additional Guidance for Learning Outcomes:

To ensure that the module is pitched at the right level check your intended learning outcomes against the following nationally agreed standards

- Framework for Higher Education Qualifications http://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf
- Subject benchmark statements https://www.qaa.ac.uk/quality-code/subject-benchmark-statements
- Professional, regulatory and statutory (PSRB) accreditation requirements (where necessary e.g. health and social care, medicine, engineering, psychology, architecture, teaching, law)
- QAA Quality Code https://www.qaa.ac.uk/quality-code

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT

Items in this section must be considered annually and amended as appropriate, in conjunction with the Module Review Process. <u>Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students.</u> Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2024/25   **NATIONAL COST CENTRE:** 121
MODULE LEADER: Perry De Caux   **OTHER MODULE STAFF:** Shaun Heslop

Summary of Module Content
Local industry speakers on relevant cloud practices
Research of current cloud usages in relation to local businesses
Reviews of Azure, AWS and Google Cloud
Azure core features
Azure core solutions, management tools and security
Implement a small business public cloud solution
Key cost features of cloud providers
Management of key cost features, especially in relation to small businesses

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*		
Scheduled Activities	**Hours**	**Comments/Additional Information (briefly explain activities, including formative assessment opportunities)**
Lecture	27	18 x 1.5 sessions - Lecture style delivery with group exercises
Supervised workshop	15	10 x 1.5 sessions - Feedback from tutor. Q&A with tutor
Guided independent study	158	Directed reading and research; completion of formative assessment tasks; development and completion of course work.
Total	**200**	**(NB: 1 credit = 10 hours of learning; 10 credits = 100 hours, etc.)**

SUMMATIVE ASSESSMENT

Element Category	Component Name	Component Weighting
Coursework	Formal report (ALO 1, 2 and 4)	70%
	Screen recording (ALO 3)	30%
		100%

REFERRAL ASSESSMENT

Element Category	Component Name	Component Weighting
Coursework	Formal report (ALO 1-4)	100%

To be completed when presented for Minor Change approval and/or annually updated	
Updated by: Date: XX/XX/XXXX	**Approved by**: Date: XX/XX/XXXX

UNIVERSITY OF PLYMOUTH MODULE RECORD

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty/AP Quality Procedures for approval and issue of new module code.*

MODULE CODE: HIGH3312   **MODULE TITLE:** Modern Web Applications
CREDITS: 20   **FHEQ LEVEL:** 6   **HECOS CODE(S): 110108**
PRE-REQUISITES: None   **CO-REQUISITES: None**   **COMPENSATABLE: Y**

SHORT MODULE DESCRIPTOR:
Web development and applications are constantly evolving and industry practices continually changing. Students will focus on the challenges developers face and how to meet these challenges whilst also considering current and new security threats. In response to this, students will produce a high-quality web app whilst ensuring thorough testing is implemented throughout the whole process and across a range of areas.

ELEMENTS OF ASSESSMENT *[Use HESA KIS definitions] – see Definitions of Elements and Components of Assessment*					
E1 (Examination)		**C1** (Coursework)	100%	**P1** (Practical**)**	
E2 (Clinical Examination)		**A1** (Generic assessment)			
T1 (Test)		**O1(online open book assessment)**			

SUBJECT ASSESSMENT PANEL to which module should be linked: Digital Technologies

Professional body minimum pass mark requirement: N/A

MODULE AIMS:
This module will enable students to:
- Develop a comprehensive understanding of current web applications and the key considerations when developing a web application
- Develop a comprehensive understanding of the security threats faced by web applications
- Develop and test a high-quality web application using industry standard software

ASSESSED LEARNING OUTCOMES: (additional guidance below; please refer to the Programme Specification for relevant Programme Intended Learning Outcomes.

At the end of the module the learner will be expected to be able to:

Assessed Module Learning Outcomes (ALOs)	Programme Intended Learning Outcomes (PILOs) contributed to
1. Critically evaluate current and future web application developments and the impact on web development	8.1.1, 8.3.1, 8.4.3
2. Evaluate the security threats and vulnerabilities posed to modern web applications and the methods to protect against them	8.1.1, 8.1.2, 8.3.1, 8.4.3,
3. Apply the procedures and processes necessary for the construction of a high-quality web application	8.1.3, 8.1.4, 8.2.1, 8.2.2, 8.3.3, 8.4.2, 8.4.3, 8.5.1, 8.5.4
4. Apply a range of testing strategies and techniques to quality assure and continuously monitor web applications.	8.1.2, 8.2.3, 8.3.3, 8.5.4

DATE OF APPROVAL: 10/08/2022	**FACULTY/OFFICE:** UPC
DATE OF IMPLEMENTATION: 09/2022	**SCHOOL/PARTNER:** University College Jersey
DATE(S) OF APPROVED CHANGE: XX/XX/XXXX	**SEMESTER:** Semester 2

Notes:

Additional Guidance for Learning Outcomes:

To ensure that the module is pitched at the right level check your intended learning outcomes against the following nationally agreed standards
- Framework for Higher Education Qualifications http://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf
- Subject benchmark statements https://www.qaa.ac.uk/quality-code/subject-benchmark-statements
- Professional, regulatory and statutory (PSRB) accreditation requirements (where necessary e.g. health and social care, medicine, engineering, psychology, architecture, teaching, law)
- QAA Quality Code https://www.qaa.ac.uk/quality-code

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT

Items in this section must be considered annually and amended as appropriate, in conjunction with the Module Review Process. <u>Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students.</u> Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2024-25   **NATIONAL COST CENTRE:** 121
MODULE LEADER: Stuart Philip   **OTHER MODULE STAFF:** Shaun Heslop

Summary of Module Content
User experience analysis
Craft CMS
Progressive Web Applications
Back-end development - TWIG code and understanding
Front-end development - HTML, CSS, and JavaScript
Cloud webserver deployment
Core Web Vitals
Cross-device compatibility
Responsiveness
Usability testing

SUMMARY OF TEACHING AND LEARNING *[Use HESA KIS definitions]*		
Scheduled Activities	**Hours**	**Comments/Additional Information (briefly explain activities, including formative assessment opportunities)**
Lecture	30	20 x 1.5 hour sessions - Lecture style delivery with group exercises
Practical class	12	8 x 1.5 hour sessions - Feedback from tutor. Q&A with tutor
Guided independent study	158	Directed reading and research; completion of formative assessment tasks; development and completion of course work.
Total	**200**	**(NB: 1 credit = 10 hours of learning; 10 credits = 100 hours, etc.)**

SUMMATIVE ASSESSMENT

Element Category	Component Name	Component Weighting
Coursework	Essay (ALO 1-2)	45%
	Formal report (ALO 3-4)	55%
		100%

REFERRAL ASSESSMENT

Element Category	Component Name	Component Weighting
Coursework	Essay (ALO 1-4)	100%

To be completed when presented for Minor Change approval and/or annually updated	
Updated by: Date: XX/XX/XXXX	**Approved by**: Date: XX/XX/XXXX