Validation Document		
1	Title of Programme	Digital & Technology Solutions
2	Award (e.g. FdA, FdSc)	FdSc
3	Contained Award	Certificate of HE for successful completion of 120 credits at Level 4
4	UCAS code (if applicable)	G4T2 – Grimsby G4T3 – Bridlington
5	HECOS codes	100366 40% 100358 40% 100376 20%
6	Mode of Study (full and/or part-time)	Full-time Part-time
7	Duration (total number of years)	2 years full-time 4 years part-time
8	Number of weeks per academic year	31 Each Trimester consists of 8 weeks of module delivery. Trimester 1 has an extra week in which students are prepared for study at the new level. There are 6 assessment weeks.
9	Accrediting Professional / Statutory Body (if applicable)	Skills England
10	Location of delivery	Grimsby Institute East Riding College
11	Faculty	Digital & Creative Industries
12	Entry requirements	

Standard offer

Standard entry requirement for the degree will be 80 UCAS points, with a minimum of grade '4' in GCSE English or equivalent (Functional Skills Literacy Level 2 or Adult Literacy Level 2), and grade '4' in GCSE Mathematics or equivalent (Functional Skills Numeracy Level 2 or Adult Numeracy Level 2).

Non-standard offer

TEC Partnership also encourages applications from non-traditional learners who lack formal academic qualifications for the standard entry route. All such non-traditional applicants will be interviewed and set an appropriate piece of work which will demonstrate both academic and technical aptitude within digital technologies. Applicants already working in this field will be asked to provide evidence of

relevant digital product development, and a judgement will be made taking into account their academic potential and relevant experience.

Recognition of prior learning
TEC Partnership encourages student transfers from other institutions. Applicants may be admitted with credit for prior certificated learning (RPcL) or work/life experience or other uncertificated learning (RPeL). Please refer to the HE21 Student Transfers and Recognition of Prior Learning.

13	Minimum number of students required for the programme to run	12
14	Degree classification weighting	

The degree classification is awarded based on the average percentage mark achieved at level 5 of the degree.

15	Aims of the programme and distinctive features/fit with existing provision

Overall programme description:

Digital & Technology Solutions aims to integrate theory and practice in each of the core subject areas and will actively encourage continued application within a commercial and business context. As you progress through the programme, you will develop specialist skills aligned with your career interests and aspirations. As practitioners, you will not only develop academic work but will build a portfolio of developmental work which will help in preparation for both industry and further academic study at level 6 honours stage (Top Up).

Delivery will be through lectures and presentations to integrate underpinning theory and practice in seminar and workshop sessions to build practical design and development skills. Practical activities will be based around realistic commercial scenarios and contexts and will include the development of relevant standardised documentation in line with industrial practice. Assessment of modules will reflect this, with many modules requiring a combination of developmental practice and the production of supporting technical and non-technical documentation. At the heart of this will be an understanding of the systems development lifecycle and the commonly recognised stages of this (research, planning, design, development, testing, implementation and evaluation). Reflective practice will also be embedded in all modules, with students encouraged to evaluate their own performance and make recommendations for their own further development. Opportunities will also be included to work in teams, either in person or remotely, and to formally present findings both individually and in teams.

Level 4 of the programme will focus on the acquisition of fundamental skills within the following modules: Professional & Research Skills, Systems Analysis & Design Methodologies, Computer Network Fundamentals, Programming Fundamentals, Web Development and Database System Fundamentals.

Level 5 will focus on the development and application of skills and knowledge within a commercial context. Modules at level 5 are: Software Development with Agile, Database Applications Development, and the group-based Implementing Secure Networks. These modules at level 5 lead to a Major Project bringing together the knowledge, skills and experience acquired on the programme within a self-initiated project which should form the basis for an area of employment or further study.

The development and continued success of business is increasingly predicated on its ability to harness and employ digital and technology solutions to develop and market new products and services, increase productivity and workflow, minimise costs, and protect itself from threats from various forms of cybercrime. At the core of this is an increasing need to manage and maintain large sets of data, and this in turn leads to additional security requirements and the application of advanced data analytics that rely heavily on the application of artificial intelligence. Software development will be a key aspect

of this programme also, with modules across level 4 and level 5 teaching the fundamental aspects of software development skills, as well as applying these skills in the context of agile projects.

Digital technologies are now a fundamental part of all sectors of commerce and industry, with computer systems and digital communications technologies providing the backbone for all data gathering, data management, decision making and strategic management processes, systems development, auditing, security and communication in both the public and private sectors. Underpinning this is the continual need to design and develop technological solutions to a broad range of ever-evolving problems. This encompasses a range of digital and communications-based solutions centred on the acquisition, storage, manipulation, retrieval and dissemination of data. In many cases, the solutions will be based around database functionality on the server side and web-based user experience on the client side. In recent years, these systems have become more complex and, at the same time, more necessary due to the massive volumes and range of data to be considered, a need for improved security and the introduction of more stringent regulation.

Aims of the programme

- To develop knowledge and critical understanding of the core principles of data modelling, network configuration, interface design, network security and legislation pertaining to data handling.

- To develop the ability to select from and work within recognised methodologies (systems development methodologies) appropriate to the nature and scale of any defined project.

- To develop strong skills in analysis, planning and design of data-driven systems; to include analytical and problem-solving skills and the production of documentation to recognised communicable standards.

- To equip practitioners with relevant skills in the development and deployment of data-driven applications to serve a broad range of industrial and commercial needs.

- To develop the capability to critically reflect on personal and professional aspirations in relation to further study, employment and international opportunities in data and communications.

- To develop and nurture an awareness of professional and ethical work practices as part of a team and independently, which informs all roles and responsibilities within digital technologies and communications.

This programme will be distinctive as it will focus on teaching through employer engagement and project-based learning based on the needs of business as a core. It will include business and information systems, business analysis and professional project management, which will centre on business-oriented solutions. During level 5 of the programme, students will work towards their specialism within a specialist project module and could choose from the following specialisms: Software Engineer, IT Consultant, Cyber Security Analyst, Data Analyst and Network Engineer.

The programme learning outcomes cover the full range of benchmarks, allowing the programme to be effectively mapped to the current BSc Digital Technology Solutions Top Up entry requirements, allowing graduates to progress directly on to this programme. In addition, it should be possible for students to apply to other institutions offering comparable BSc (Hons) top-up programmes.

Many employers both within the computing/ICT sector and other industry/commercial sectors will fully recognise the FdSc award, opening up the potential to apply for graduate employment in some cases. Students may also choose to follow up the programme by undertaking professional certification programmes (for example, those offered by CISCO, Microsoft, Adobe, etc.)		
16	Programme Learning Outcomes *Upon successful completion of this programme a student will be able to...*	
	Programme Learning Outcome	Subject Benchmark Reference
1	Critically analyse a business domain, identifying and evaluating the role of IT systems and proposing digital technology solutions to issues and opportunities, with consideration of change management, organisational culture and cost/benefit analysis.	6.3 i, 6.3 ii, 6.3 v, 6.3 vi,6.5 i, 6.5 ii, 6.5 iv, 6.5 v, 6.7i, 6.7 ii & 6.7 iii
2	Analyse business and technical requirements to select, specify, implement and test appropriate and secure technology solutions.	6.3 i, 6.3 ii, 6.3 iii,6.5 i, 6.5 ii, 6.5 iv, 6.5 v, 6.5 vi, 6.7 i& 6.7ii
3	Identify user, system and data requirements in the context of organisational information systems, model data solutions and demonstrate understanding of the application of data analysis and administration skills, maintaining data integrity.	6.3 i, 6.3 ii, 6.3 iii, 6.3 vi,6.5 i, 6.5 ii, 6.5 iv, 6.5 v, 6.7 i & 6.7 iii
4	Conduct and correctly document both secondary and primary research activities, making appropriate use of referencing, citation and planning strategies in order to support the execution of primary research activities, and to support study within the programme following academic conventions.	6.3 i, 6.3 ii, 6.3 v, 6.3vi,6.5 i, 6.5 iii, 6.5 iv, 6.5v, 6.5 vi & 6.7iii
5	Plan, design and manage computer and network infrastructure, employing structured problem-solving techniques to enable services and capabilities for the organisations and systems in which they operate.	6.3 i, 6.3 ii, 6.3 iii, 6.3 v, 6.3 vi,6.5 i, 6.5 ii, 6.5 iii, 6.5 iv, 6.5 v, 6.5 vi, 6.7 I, 6.7 ii & 6.7 iv
6	Carry out research in order to integrate underpinning theory and contextual insight to support the planning and design of digital solutions for business and commercial contexts.	6.3 i, 6.3 ii, 6.3 vi,6.5 i, 6.5 ii, 6.5 v, 6.5 vi & 6.7iii
7	Demonstrate the application of systematic methodologies for initiating, planning, executing, managing and completing projects using research skills, industry-standard processes, methods, techniques and tools.	6.3 I, 6.3 ii, 6.3 iii. 6.3 iv, 6.3 v,6.5 i, 6.5 ii, 6.5 iii, 6.5 iv, 6.5 v, 6.5 vi, 6.7i, 6.7ii & 6.7iii
8	Identify, analyse and critically evaluate security issues with planned and installed information systems or services, performing analysis of risk and proposing and configuring solutions, and be able to apply the principles of cyber security issues to implement, maintain and support security within those solutions.	6.3 I, 6.3 ii, 6.3 iii. 6.3 iv, 6.3 vi,6.5 i, 6.5 ii, 6.5 iii, 6.5 iv, 6.5 v, 6.5 vi, 6.7 i& 6.7ii
9	Apply the principles of business analysis, solutions development, network infrastructure, data analysis and cyber security and regulation, providing strategic guidance and support to enhance the business through digital and technology solutions.	6.3 i, 6.3 ii, 6.3 iii. 6.3 iv, 6.3 v, 6.3 vi,6.5 i, 6.5 ii, 6.5 iii, 6.5 iv, 6.5 v, 6.5 vi, 6.7 I & 6.7 ii
10	Apply network engineering principles to design, install, configure and support communication networks within and between organisations.	6.3 I, 6.3 ii, 6.3 iii. 6.3 iv, 6.3 v, 6.3 vi,6.5 i, 6.5 ii, 6.5 iii, 6.5 iv, 6.5 v, 6.7i & 6.7ii

11	Demonstrate professional, business and interpersonal skills appropriate to the organisation and in wider contexts.	6.3 I, 6.3 v, 6.3 vi,6.5 I, 6.5 ii, 6.5 v, 6.5vii, 6.7i, 6.7 iii & 6.7 iv
12	Apply project management in the context of systems analysis and design projects and incorporate relevant stages identified within recognised systems development methodologies in order to ensure that projects are carried out to completion.	6.3 I,6.3 v, 6.3 vi,6.5 I, 6.5 ii,6.5 iv, 6.5 v, 6.7 I, 6.7 ii & 6.7 iv
16b	Additional Outcomes aligned to PSRB or Apprenticeship Standards	
1	Take and interpret given software development requirements to estimate effort to deliver the work product to enable accurate costs to be established.	Duty 1
2	Break software development activities down into logical units of work to enable sequencing and ensure the best possible structuring of activities to deliver a high-quality product right first time.	Duty 2
3	Report progress accurately throughout the development life-cycle stages to ensure adequate audit trails of key work steps such that the organisation can demonstrate how the product has been created for quality and commercial purposes.	Duty 3
4	Identify and report any impediments to software development activities and propose practical solutions.	Duty 4
5	Convert customer requirements into technical requirements, both functional and non-functional, to ensure that customers' expectations are accurately reflected in the software products developed	Duty 5
6	Identify and select the most appropriate technical solution, taking into consideration coding best practices and appropriate quality standards.	Duty 6
7	Communicate software development solutions to a range of internal or external stakeholders to ensure clear understanding of requirements and how they have been met or adjusted.	Duty 7
8	Consider security implications of proposed design to ensure that security considerations are built in from inception and throughout the development process.	Duty 8
9	Write logical and maintainable software solutions to meet the design and organisational coding standards (Software Development Lifecycle - Implementation and Build phase).	Duty 9
10	Apply security best practices to the software solution throughout the software development life cycle.	Duty 10
11	Create and maintain appropriate project documentation to explain the development process and resources used.	Duty 11
12	Apply appropriate recovery techniques to ensure the software solution being developed is not lost (Software Development Lifecycle - Implementation and Build phase).	Duty 12
13	Implement appropriate change control to ensure that software development changes may be tracked and quality risks managed.	Duty 13
14	Undertake unit testing of solutions, with appropriate levels of test code coverage, to identify and, where necessary, resolve issues (Software Development Lifecycle -Implementation and Build phase).	Duty 14
15	Perform testing of the software solution to ensure a high-quality output (Software Development Lifecycle -Test phase).	Duty 15
16	Deliver a suitably documented deployable solution to the customer for their use (Software Development Lifecycle - Deploy phase).	Duty 16
17	Support delivery of one or more software deployment phases, such as trials and final release, to ensure that software developer outcomes are deployed correctly.	Duty 17
18	Provide support during software trials and after final release to ensure that customers understand and can correctly apply the product, and risks are mitigated.	Duty 18
19	Respond appropriately to given Service Level Agreements (SLAs) to ensure that time and resources invested in software development activity are allocated appropriately to deliver good customer service.	Duty 19

20	Apply suitable 'bug fixes', appropriate to the severity and priority of the software development issue identified.	Duty 20
21	Practice continuous self-learning to keep up to date with technological developments to enhance relevant skills and take responsibility for own professional development.	Duty 21

17 Teaching and Learning Strategy

The teaching and learning strategy for this programme will be based around a combination of traditional lectures and seminars for the delivery of underpinning theory, core module content and the demonstration of practical skills; together with labs/workshops to allow students to apply and develop practical and technical skills. The balance of formal delivery to lab/workshop sessions will be determined by the requirements of each module. In addition to the combination of lectures/seminars and labs/workshops, students will be able to access tutorial support in order to address individual needs (in addition to more traditional tutorials covering pastoral support requirements), and in the case of self-directed research and/or development projects, each student will be entitled to 5 hours of academic supervision per relevant module.

Practical and professional skills will be developed through projects, briefs and assignments which develop and encourage practical application of learning. Both core modules and the later specialist modules will employ this approach to ensure that learning outcomes are planned to reflect real-world business practices and requirements, and enhance the business or organisation in which they are employed.

The teaching and learning strategy is focussed on producing independent and competent practitioners who have a rounded knowledge and appreciation of digital and technology solutions, whilst being able to specialise in an area to contribute to an organisation. The ability to maintain cognisance of the constant changes within digital and technology opportunities, threats and developments and their application to business organisations is a core aim within the strategies for teaching and learning on this programme.

Level 4

Modules at level 4 are designed with an understanding that students joining the programme may have widely varying skills and experience, and therefore the subject matter of any given module may be unfamiliar to the student. With that in mind, each level 4 module covers the fundamental theories of its subject as if the subject is being delivered 'from scratch' within the earliest stages of the module; however, the coverage of the fundamentals will be limited, and it is expected that students who are unfamiliar with a module's subject will also carry out independent study in that area and will make use of tutorial support to address any shortfall or gaps in their knowledge and skills. From this foundation, students will go on to develop knowledge and skills to meet the level 4 outcomes.

The approach at level 4 is still very much one of teaching and learning, with tutors guiding students through the modules but actively encouraging independent study and work that goes beyond threshold learning outcomes with deeper exploration of each module's indicative content.

All modules will encourage thorough secondary research and the application of that research, critical thinking, analysis and evaluation, and reflective practice. This will be reflected in the assessment requirements and guidance for each module.

The balance between lecture/seminar and labs/workshops will reflect the emphasis on teaching.

Essential study skills, research skills and core professional skills are included at level 4 in order to ensure students are able to make the transition to level 5 successfully.

Level 5

Modules at level 5 will build upon modules covered at level 4, both directly and in combination. With this in mind, level 4 modules will be identified as prerequisites for level 5 modules where relevant.

At level 5, the approach will shift from one of teaching and learning to one of learning and teaching, implying that students will be expected to be more independent and capable of self-directed study, with teaching intended as support for those areas where students identify additional support needs. Each module will still include delivery of relevant and new underpinning theory and skills, but the balance between lectures/seminars and labs/workshops will shift with an increase in workshop time to allow students to carry out their own self-directed development activities. A 40-credit networking group project exists to allow students to work on a practical, hands-on networking project, providing students with the opportunity to undertake varying roles within a networking project and work on different aspects of a medium-scale networking solution.

This will culminate in students undertaking and completing a substantial (40 credit) Major Project in which delivery will support individual practice, research and project management.

18	Programme Structure

Module Title	Core/ Option	Credits	Level	Delivery T1/T2/T3
Full Time				
Professional and Study Skills	C	20	4	T1
Web Development	C	20	4	T1
Computer Networking Fundamentals	C	20	4	T2
Systems Analysis and Design Methodologies	C	20	4	T2
Programming Fundamentals	C	20	4	T3
Database System Fundamentals	C	20	4	T3
Software Development with Agile	C	20	5	T1
Implementing Secure Networks	C	40	5	T1/T2
Server-Side Development	C	20	5	T2
Major Development Project	C	40	5	T3
Part Time				

Professional and Study Skills	C	20	4	Year 1 T1
Computer Networking Fundamentals	C	20	4	Year 1 T2
Database Systems Fundamentals	C	20	4	Year 1 T3
Web Development	C	20	4	Year 2 T1
Systems Analysis and Design Methodologies	C	20	4	Year 2 T2
Programming Fundamentals	C	20	4	Year 2 T3
Software Development with Agile	C	20	5	Year 3 T1
Server-Side Development	C	20	5	Year 3 T2/T3
Implementing Secure Networks	C	40	5	Year 4 T1/T2
Major Development Project	C	40	5	Year 4 T3

19	References used in designing the programme
QAA Subject Benchmarking Statement – Computing 2019	
20	Indicators of quality and standards

The programme will follow the QA standards of TEC Partnership. The programme has been written with reference to appropriate external reference points.

QAA reviews will be published and any weaknesses addressed as appropriate. TEC Partnership also undertakes a number of scheduled internal periodic and thematic reviews throughout each academic year to assure itself of the quality and standards of its provision.

External Examiners reports are received by the HE Quality department and a copy is forwarded to the relevant School. TEC Partnership requires action plans to be created for any actions recommended as a result of student, tutor, moderator or External Examiner comments. These are reported to the HE Committees. TEC Partnership also monitors External Examiner reports and these are reported on through faculty self-evaluation and enhancement documents, the quality enhancement report and TEC Partnership's External Examiner's institutional analysis report.

Annual course reviews (AMRs) will take place in line with the requirements of TEC Partnership and actions planned to rectify any weaknesses and further develop the quality of the provision. These AMRs are moderated internally by the Curriculum Manager and then submitted to the HE Quality department to ensure key sources, such as External Examiner reports, are fully reflected upon before being published, and also to reduce variability in the quality of information presented.

In addition to the AMR, a quality improvement proforma (QIP) is used to outline and monitor any and all recommended actions indicated within the AMR. Both the AMR and QIP for the programme are treated as living documents to be reviewed, actioned and updated throughout each academic period.

21	Particular support for learning

The needs of disabled learners are taken into account in the design of all learning programmes.

Students will be screened at induction to identify those with individual learning support needs. TEC Partnership has well-established procedures in place to support all identified students through the application and assessments for the Disabled Students' Allowance to secure any specialist equipment or tuition which is required.

Students will also be invited in for advice and support through the DSA procedure.

Each student is entitled to one tutorial per semester with the programme leader to discuss individual issues relating to both modules and the programme overall.

In addition to study skills embedded in the programme, TEC Partnership employs an Academic Achievement Service. The Academic Achievement Service, which is a face-to-face and virtual service, is responsible for working with students to support them in the development of their study skill abilities and includes interventions such as support towards use of ICT, giving presentations, using formal writing and appropriate academic conventions, avoiding plagiarism, analytical and critical writing skills. Students have access to one support and also timetabled study skills workshops.

22	Methods for evaluating and improving the quality of learning

All students will have the opportunity to comment on the quality of the learning experience on each module. Staff will also be expected to complete module evaluations for each module that they deliver. This feedback must be analysed by the module leader and the results fed into the annual monitoring report, faculty self-evaluation document and subsequent year's module handbook. Programme and module leaders must give consideration to modification to improve the delivery of any module, and this should be recorded in the annual monitoring report and carried forward for minor or major modifications as appropriate.

TEC Partnership's policy requires that all teaching staff should be observed delivering learning at least annually. Teaching and learning that does not reach the minimum expected standard will result in an action plan agreed between the line manager and the member of staff.

Student satisfaction is measured by student surveys on larger courses; on the smaller courses, student opinion may be gathered by other survey means. Student representatives are invited to course team meetings and additionally have the opportunity to raise items with the course leader at individual meetings outside the course team.

All modules make use of standardised module evaluation questionnaires on their completion, allowing students to provide feedback on all aspects of a module's delivery, resources and assessment. Students are actively encouraged to complete these, and the information gathered is used within the programme's AMR & QIP and also reviewed within each module's handbook. This information can then be used to make changes to the module (if necessary, up to the level of minor modifications) during the annual review period and prior to release for the next cohort.

Further, TEC Partnership facilitates the Student Senate, which consists of student representatives from each HE department. The Senate meets on a monthly basis, and its remit is to:

- Consider matters relating to the student experience within Higher Education.
- Enhance the Student Voice within TEC Partnership's Higher Education strategic and operational agenda.
- Provide feedback on areas of good practice.

- Put forward suggestions of the development of Institutional policy and strategy.
- Enhance the student learning experience by promoting academic and research events and cultural events in UCG.
- Increase student engagement in all aspects of Higher Education quality processes.

23	Identify any ethical issues that relate to this programme's teaching and assessment

While the majority of modules should present no ethical issues, students will undertake a major project at level 5 which will require them to engage with an external employer/agency in order to provide foundation for and approval of the project. With this in mind, it is possible that issues may arise regarding GDPR (use of live data within projects) and that students may also need to conduct primary research within the problem domain of the project.

To address this, the major project will require students to complete and have approved an ethics proposal prior to any development activity or primary research taking place.

Ethics proposals will then be reviewed by the programme leader and the departmental ethics co-ordinator prior to being presented to the Institute's ethics committee for review (if this is deemed to be necessary by the programme leader and departmental ethics co-ordinator).

24	Is the Programme Work Based or Work Related?	Work Related

25	How are WBL/WRL opportunities managed, monitored and reviewed, and what particular arrangements are there for student support

There are no traditional work placements within the programme, however the major project will be undertaken with a local employer (students will be required to engage and liaise with a local employer throughout the duration of the project, and the development focus of the project must represent a real-world business case/problem agreed with that employer).

In all cases, students will be required to complete a project proposal to be agreed by the major project module tutor, the student, the employer and any other major stakeholders of the project, prior to the project start. This document will be signed off by all parties. Additionally, all students will be required to complete an ethics proposal to be approved by the local ethics co-ordinator in cases where no ethical issues are identified, or sent for review and approval by the ethics committee at Grimsby Institute.

All modules, where relevant, will include scenarios or case studies that reflect current, real-world business practices.

26	Resources Supplied to the Student

Access to a laptop or desktop-based Windows PC with online access through a maintained internet connection. Access either locally or remotely to isolated network servers and additional networking equipment (routers, switches, hubs and firewall firmware). Office 365 or an equivalent suite of office/ICT applications. OneDrive or equivalent cloud-based storage. Packet Tracer for design and simulation of networks. MySQL, Microsoft SQL Server Management Studio, PHPMyAdmin or an equivalent set of tools for database design and development. MS Visual Studio.NET or equivalent IDE with support for languages used within module delivery (e.g. HTML, CSS, JavaScript, Java, Python, C#).

Students will also have access to the library catalogue and be able to order books on site.

27	Resources needed to pass the programme

All Students will need to ensure they have suitable stationery (pens, notebooks, pencils, ruler, eraser) and at least two USB storage devices to allow for storage and backup of their work. Access to a laptop or desktop would be advantageous.

28	Revision History	
Version	Details of major modification	Date of approval
1	Revalidation	
2	Addition of HTQ Standard	08/06/2023
3	Addition of East Riding College as site	11/11/2026

Curriculum Map																	
Key	Work – State WB or WR or blank Comp = Compensatable Y or N			P = Partially achieved Learning Outcome F = Fully achieved Learning Outcome													
Module name	Level	Work	Module Leader	Assessment and Weighting	Comp	1	2	3	4	5	6	7	8	9	10	11	12
Professional and Study Skills	4	-	Ashley Darley/Justin Williamson	Academic Report 40% Group Presentation 60%	Y				P		P					P	P
Systems Analysis and Design Methodologies	4	-	Ashley Darley/Justin Williamson	Report 30% Case Study 70%	Y	P	P	P		P	P	P		P			
Computer Network Fundamentals	4	WR	Ashley Darley/Justin Williamson	Report 40% Case Study 60%	N		P			P			P		P		
Programming Fundamentals	4	-	Ashley Darley/Justin Williamson	Product Development 100%	Y	P	P	P			P	P		P			
Web Development	4	WR	Ashley Darley/Justin Williamson	Web Design Documentation 30% Web Development Product & Supporting Documentation 70%	Y	P	P		P			P				P	P
Database System Fundamentals	4	-	Ashley Darley/Justin Williamson	Report 40% Product Development 60%	Y		P	P				P		P			P
Software Development with Agile	5	-	Ashley Darley/Justin Williamson	Development Portfolio 80% Sprint Retrospective 20%	Y	P	F	F			F	F				F	F
Server-Side Development	5	WR	Ashley Darley/Justin Williamson	Product Design Development 100%	Y	F	F					F		F			
Implementing Secure Networks	5	WR	Ashley Darley/Justin Williamson	Group Design Documentation 40% Group Product Development & Testing 60%	N		F	F		F		F	F		F		
Major Development Project	5	WR	Ashley Darley/Justin Williamson	Planning Portfolio 40% Product Demonstration & Documentation 40% Reflective Evaluation 20%	N	F			F		F	F		F		F	F

TEC Partnership Graduate Mapping					
TEC Partnership Graduate Attributes		Assessment References	Module References	To be covered in tutorial	KSB competencies mapping
Fortitude and Criticality	• Adaptability to changing situations	The assessments within the Major Development project module will require students to display adaptability in the face of independently planning and managing their own project	The Professional and Study Skills module will teach the importance of adaptability as a professional skill within the IT sector		B6 B8
	• Being productively disruptive	Assessments that form part of the Major Development Project modules will potentially allow for being productively disruptive, through researching, recommending and applying changes to organisations or processes.	The Major Development Project and Software Development with Agile modules will allow graduates to develop and enhance their adaptability, managing projects independently in which change management is a vital aspect, particularly when dealing with external clients. The Software Development with Agile module will cover the importance of agile in this manner		B6 B8
	• Resilience	Assessments within the major development project and portfolio modules will allow for the building up of resilience through the self-management of projects			B1, B2 B6 B8
	• Preparing for unknown futures		Software Development with Agile and the Major Development project will include key delivery upon preparing for unknown futures through discussion of the rapidly advancing major of the IT and Computing sector and current/emerging technologies within		B8 B9
	• Finding alternative solutions to problems	The major development project design assessment will include finding appropriate solutions to encountered problems	Programming Fundamentals, Software Development with Agile, Server-Side Development and Major Development project all include key delivery upon identifying potential solutions to encountered problems		B6 B8
Teamwork	• Human interaction skills	The Development Project module will allow students to interact with external clients and individuals in the seeking out and implementation of their project for this module. The professional study skills module will have students undertaking a physical presentation with interaction between group members			B3 B4 B7
	• Leadership and followership skills	The Major Development Project embeds these skills through students being required to independently plan and manage their own independent project. Additionally, the Professional and Study Skills module, Implementing Secure Networks and Software Development with Agile modules all include elements of group work that will embed leadership and followership skills			B3 B4 B7

	• Project development and/or management	Project management and development skills will be embedded within the assessments of the Major Development project module	The Major Development project module will include significant delivery on project management and development		B4
Presentation	• Confidence in communication	Presentations will be a common form of assessment throughout this module to allow for the development of key communication skills	Students will be required to formulate ideas and deliver these to tutors both through written and verbal mediums across all modules		B4 B7
	• Digital skills and adaptability	All assessments will require students to utilise and develop their digital skills through practical creation of artefacts, or the production of presentations and recordings for assessment	Digital skills will be embedded throughout all modules of this programme as a mandatory necessity. Adaptability to changing circumstances will be key through the Major Development Project learning and assessment.		B1
	• Time Keeping	Presentations will be a common form of assessment throughout this module, which will be time-constrained to an allotted time period that students must adhere to	Timekeeping skills and techniques will be delivered within Professional Study Skills and Major Development Project modules, such as the use of appropriate project and time management software		B3
	• Self-Presentation	Students will be required to display self - presentation through the varied assessment methods displayed on this programme, particularly presentations, that will require students to deliver professional presentations that make their knowledge of these subjects clear to audiences			B7
Personal Values	• Professional attitudes and values	Professional attitudes and values will be embedded through all modules on this assessment, and professionalism will be required during Project modules as students will be working with clients.	Professional attitudes and values will be covered within the Professional and Study Skills modules, as this is a vital aspect within the IT and Computing sector		B1 B3 B4 B7B9
	• Ethics and morals	Ethics and morals will be considered heavily within student assessments in the Professional and Study Skills modules. Furthermore, the relation of this to GDPR will also be covered in data-related modules such as Database Systems Fundamentals and Server-Side Development			B3 B4 B5
	• Self-Care and care of others		Self-care and care of others is embedded into most modules, relating to the ethics and morality covered above.		B4

Higher Technical Qualification – Level 4 Software Developer Occupational Standard KSB Mapping Grid					
Module	**Level**	**Assessment**	**Knowledge**	**Skills**	**Behaviours**
Professional and Study Skills	4	• Academic Report 40% Group Presentation 60%	K4		B1 B3
Systems Analysis and Design Methodologies	4	• Report 30% • Case Study 70%	K1 K2 K3 K5 K6 K10 K11	S9	B1 B3 B6
Computer Network Fundamentals	4	• Report 40% Case Study 60%	K8		
Programming Fundamentals	4	• Product Development 100%	K1 K5 K7 K9 K11 K12	S1 S3 S4 S7 S8 S10 S11 S12 S16	B1 B2 B3 B5 B6
Web Development	4	• Web Design Documentation 30% Web Development Product & Supporting Documentation 70%		S2	
Database System Fundamentals	4	• Report 40% Product Development 60%	K10 K11		B3 B5
Software Development with Agile	5	• Development Portfolio 80% • Retrospective review 20%	K1 K3 K5 K6 K7 K9 K10 K11 K12	S1 S2 S3 S4 S5 S6 S7 S8 S10 S12 S13 S14 S15 S16 S17	B1 B2 B3 B4 B5 B6 B7 B8 B9
Database Applications Development	5	• Product Design Development 100%	K10 K11	S1 S2 S3 S4 S8 S9 S10 S11 S12 S13 S14 S16 S17	B1 B2 B3 B5 B6
Implementing Secure Networks	5	• Group Design Documentation 40% • Group Product Development & Testing 60%	K8		

Major Development Project	5	• Planning Portfolio 40% Product Demonstration & Documentation 40% Reflective Evaluation 20%	K4 K11	S2 S3 S4 S5 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17	B1 B2 B3 B4 B5 B6 B7 B8 B9