GCU

Glasgow Caledonian
University

Programme Specification (and Curriculum Map)
Dept. of Computing
Full-time Undergraduate Programme

March 2022

PROGRAMME SPECIFICATION

for the

BSc/BSc (Hons) Information Technology Management for Business Programme

April 2022

GLASGOW CALEDONIAN UNIVERSITY   PS1

Programme Specification Pro-forma

1.	GENERAL INFORMATION	
1.	**Programme Title:**	BSc/BSc (Hons) Information Technology Management for Business
2.	**Final Award:**	BSc, BSc (Sandwich), BSc (Hons), BSc (Hons) (Sandwich)
3.	**Exit Awards:**	University Certificate in Computing
		University Diploma in Computing
4.	**Awarding Body:**	Glasgow Caledonian University
5.	**Approval Date:**	November 2018
6.	**School:**	School of Computing, Engineering and Built Environment
7.	**Host Division/Dept:**	Department of Computing
8.	**UCAS Code:**	5C92
9.	**PSB Involvement:**	British Computer Society
10.	**Place of Delivery:**	City Campus
11.	**Subject Benchmark Statement:**	Computing
12.	**Dates of PSP preparation/revision:**	September 2021

2.   EDUCATIONAL AIMS OF THE PROGRAMME

The BSc/BSc (Hons) Information Technology for Business (ITMB) programme is an applied computing programme which aims to produce graduates with the distinct specialist knowledge and skills required to develop and support information systems for business. It is targeted at meeting the key requirements employers have identified for IT and business aware graduates who also have an understanding of project and management skills. The framework for this programme has been influenced by The Tech Partnership (formally e-skills UK) working in close partnership with large scale industry players (including BT, Capgemini, CA Technologies, Cisco Systems, IBM, CGI, Ministry of Justice and NHS).

The central theme of the programme is the application of IT to business. It therefore provides students with opportunities to develop a wide range of technical and engineering skills while also providing them with a broad understanding of business-centred information systems and the business models, needs and organisational structures these systems support.

Students study a range of modules from across the School of Engineering and Built Environment and Glasgow School for Business and Society. The balance of subject material means that students spend around 30% of their time developing technical skills, 25% developing business skills, 20% personal and inter-personal skills and 25% project management skills.

The Tech Partnership ITMB programme has been running since 2005 and is currently offered by 19 universities across the UK. GCU is currently the only Scottish institution to offer the programme which was accredited until the 2019 intake. Since it was developed, the number of applications to the programme across the UK has risen on average by 24% every year. Student satisfaction amongst ITMB programmes is higher than the national average and was cited by the Guardian as the best route to IT Director Jobs in both 2012 and 2013. Research conducted by The Tech Partnership indicates that 100% of 2011 The Tech Partnership ITMB graduates were found to be employed or in further education.

The broad educational aims of the programme are to:

- provide students with the necessary knowledge and skills to equip them for a career in the development,

deployment and support of computer-based IT systems for business
- provide students with a specific understanding of the technical and business concepts, processes, methods and tools used to provide IT systems which support business processes
- enable students to develop a cultural understanding of IT requirements of contemporary business and to be able to communicate these to both technical and non-technical professionals
- develop the ability to apply sound design principles and practical skills to solve problems across a range of domains
- enable students to acquire good analytic, synthetic and communication skills
- enable students to take responsibility for their own learning as they progress through the programme.
- assist the student in developing the skills required in adapting to changing technological and organisational developments and learning new skills
- Equip students with the ability to work both individually and as part of a team
- provide education and training which is accredited by the British Computer Society and by The Tech Partnership (the Sector Skills Council for Business and Information Technology)

Expected Levels of Attainment
- On successful completion of level 1 of study a student should have a basic knowledge and understanding of the software and hardware concepts which underpin modern computer systems.
- On successful completion of level 2 of study a student should have a sound knowledge of software design and business concepts and be competent to apply these in a range of domains.
- On successful completion of level 3 of study a student will be able to plan, develop, and support IT systems and services in response to a business need, in accordance with fundamental principles and methods, using appropriate techniques and tools.
- On successful completion of level H of study a student will, in addition, be able to critically evaluate alternative solution approaches for the provision of IT based systems and services and be able to use advanced planning and development techniques in the construction of a solution.

3.	**INTENDED LEARNING OUTCOMES** – *the programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas.*

Preamble

This development of this programme has been informed by:

- The QAA Benchmark Statement of Computing
- The Association of Computing Machinery (ACM) Curricula Recommendations[1] for Computer Science (2013), Information Systems (2010), Information Technology (2017), Cybersecurity (2017) and Software Engineering (2014)
- The British Computer Society (BCS) Core Requirements for Accreditation of Honours Programmes
- The Sector Skills Council for the Computing/IT Industry: The Tech Partnership Learning Outcomes and Skill Requirements for ITMB
- The School of Computing, Engineering and Built Environment research in the areas of:
  - o Networks and Communications;
  - o Interactive and Trustworthy Technologies;
  - o Distributed and Pervasive Systems Initiative;
  - o Visual, Affective and Pervasive Systems and
  - o Computer Science Education
- The School of Computing, Engineering and Built Environment Knowledge Transfer and Lifelong Learning programmes
- Glasgow Caledonian University's Strategy for Learning
- The School of Computing, Engineering and Built Environment Learning, Teaching and Assessment Strategy

3A   Knowledge and Understanding:

Students will be able to:

A1   Explain the theoretical and practical aspects of software and hardware which underpin modern computer systems

A2   Demonstrate knowledge and understanding of facts, concepts, principles and theories relating to software development

A3   Utilize and appraise tools and techniques to assist in the development of software systems.

A4   Demonstrate an understanding of the methods used to specify, model, develop, deploy and maintain software systems in a business context

A5   Demonstrate an awareness of the role of the IT professional and the context in which they operate including moral, legal, safety and ethical issues

A6   Demonstrate an understanding and appreciation of the importance of negotiation, effective work habits, leadership and good communication with stakeholders

A7   Demonstrate an awareness of the theoretical and practical aspects of business processes, organisational structures and management theories relevant to the design and deployment of information systems and services to support business

3B   Intellectual Skills:

B1   Identify, analyse and solve practical problems
B2   Plan, conduct and report upon work
B3   Evaluate alternative solutions to problems in an appropriate subject domain.
B4   Critically evaluate work undertaken by themselves and others
B5   Gather and evaluate research information from a variety of sources

3C   Professional/ Practical Skills:

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[1] https://www.acm.org/education/curricula-recommendations

C1	Undertake the analysis, design, implementation and testing of information systems across a variety of application domains
C2	Demonstrate effective use of a variety of appropriate techniques, tools and integrated development environments in the development and deployment of computer based information systems
C3	Use appropriate methods and techniques to specify, develop and deploy IT systems and services
C4	Demonstrate competence in using business processes, organisational working practices and project management practices
C5	Apply theory to practical and realistic career-related tasks

3D   Transferable/Key Skills:

D1	Specialist knowledge and application
D2	Critical thinking and problem solving
D3	Critical analysis
D4	Communication skills, written, oral and listening
D5	Numeracy
D6	Effective information retrieval and research skills
D7	Computer literacy
D8	Self confidence, self discipline & self reliance (independent working)
D9	Awareness of strengths and weaknesses
D10	Creativity, innovation & independent thinking
D11	Knowledge of international affairs
D12	Appreciating and desiring the need for continuing professional development
D13	Reliability, integrity, honesty and ethical awareness
D14	Entrepreneurial independence and risk-taking
D15	Ability to prioritise tasks and time management
D16	Interpersonal skills, team working and leadership
D17	Presentation skills
D18	Commercial awareness

3E   Additional Industrial Placement Skills

The programme has an optional one year credit-rated placement period in related employment which provides the opportunity for further development of the taught practical, personal and professional skills in a work-based environment

E1	Gain additional competence and training in the application of the practical skills of the programme.
E2	Develop an understanding of the practical considerations that constrain the application of theory in the workplace.
E3	Communicate and interact effectively within a work-based situation
E4	Evaluate current research and technology concepts and their relationship and application to a work-based problem

Strategy for Learning

The Strategy for Learning (SfL) for this programme has been designed to meet the overall aims of the programme as well as the specific learning outcomes expected of students. The teaching approach is student centred, practical and participative and has been designed to move away from the traditional teacher centred paradigm to a more active, student driven, independent model of learning.
Students are encouraged to take a broad view of their education and to participate in competitions, engage in external visits, attend lectures by external speakers and participate in employer led events as well as attending scheduled classes, using online resources and undertaking independent study.

A range of delivery methods are used on the programme including: lectures; group-based tutorials (both tutor and student led); group based practical computing labs (supervised and directed); problem based learning scenarios and case studies; directed study; coursework assignments (individual and group-based) and supervised projects (in all programme levels).

GCU's SfL is underpinned by a model comprised of eight design principles. This programme embeds these principles in the following ways

Engaged learning:
- The programme has a project module each year
- The integrated projects in years 1-3 are group based encouraging team working and cross curricular activity. The integrated project module in year 3 requires students to work in interdisciplinary teams.
- A range of effective and accessible forms of academic support, including personal tutors and academic development tutors are available to students on the programme.
- Students have been involved in the course development process and will continue to be involved in the development of the programme.
- Students are encouraged to broaden their range of skills, knowledge and strengths by participating in external competitions and events and to apply these experiences to their studies.

Divergent thinking
- Project modules in each year provide the opportunity for students to engage with open ended problems and projects both on their own and in teams.
- Students are encouraged to use collaboration tools to aid learning. The tools used include both Web 2.0 collaboration tools such as social media, blogging, wiki and GCULearn and industry standard versioning tools such as GitHub. These tools are used in a wide range of modules across the programme.

Flexible, Inclusive and Accessible
Modules have been written with reference to GCU LEAD's Flexible, Accessible and Inclusive Curriculum and so use a blended-learning approach which is accessible to all students. They incorporate 'real-life' scenario where possible, make extensive use of problem-based and project-based work , use a variety of individual, group learning, face-to-face and virtual methods of delivery and incorporate materials in a variety of formats to cater for different learning styles.
Online Managing Diversity courses will be made available to students through the GCULearn portal.
The programme also provides flexible learning by allowing students to transfer between the Department of Computing programmes in the early years.
The programme provides as many elective choices, both within the department and also in other schools in the university, as is possible within the constraints placed on it by accrediting bodies.
Exchange and Erasmus opportunities are available to students.

Broader/deeper
Integrated project modules provide opportunities for multi- and inter- disciplinary group working.
The integrated project modules have been designed to develop team building and team working skills, as well as to encourage the use of reflective practices.

The later years of the integrated project modules also incorporate peer assessment.

Students in the final year of the programme have the opportunity to choose electives which allow them to tailor their studies to their individual strengths and interests.

The importance of timely, high quality and constructive formative feedback in a variety of forms is recognised by the programme team. A number of team members are Caledonian Scholars and are working on projects in this area and modules have been written in the knowledge of the Feedback for Future Learning's 8 Feedback Principles. Module teams are expected to provide feedback within 3 weeks of both formative and summative submissions.

ITMB students attend specialist 'guru lectures' given by leading figures from industry. These are run regularly throughout the academic year and The Tech Partnership ITMB institutions take turns to host them. The lectures are broadcast live to other participating universities and provide facilities to allow students to question and interact with the speakers and the wider ITMB student community. These lectures offer students the opportunity to increase their awareness of the broader context of their discipline and interact with high profile industrial speakers.

Global learning

The programme has been designed with input from employers, many of whom are multinational companies e.g. P&G, CGI Group. They have provided case studies which include working in international teams, managing distributed projects etc.

The 'guru' lecture series, mentioned above include lectures on the topic of global working and working in distributed teams.

Students are encouraged to consider participation in International Association for the Exchange of Students for Technical Experience (IAESTE) activities and to take part in international competitions e.g. P&G IDS challenge.

Real word problem solving

The integrated project in year 2 specifies that students are expected to address problems set by external companies.

A range of modules use live project specifications supplied by companies as and when this is deemed appropriate.

A number of modules (e.g. IT Project Management1&2) also make use of employer written case studies.

Entrepreneurship and employability

All ITMB students at GCU benefit from attendance at national The Tech Partnership employability events which offer a forum for ITMB students, staff and employers across the UK to meet each other, network and exchange ideas.

Students also benefit from membership of the ITMB online networking and community website which offers regular updates on placement, internship and employment opportunities.

Students are prepared for employment and placement through the programme's Employability and Career Planning programme which all students in the Computing suite undertake during level 3.

Students attend talks by guest speakers, industrial visits and employer led activities such as CV writing workshops, interview technique classes and employability events.

Responsible leadership and professionalism

Reflection activities are embedded within many modules, notably the integrated project modules.

The understanding of standards of professional ethics, behaviours and work activities are embedded within modules at each level of study and specialized knowledge in the professional field is additionally addressed explicitly in the Research Skills and Professional Issues module in year 3.

All students are encouraged to take responsibility and leadership of their assigned roles within the integrated project modules.

The programme is professionally accredited.

Assessment methods used include: unseen written examinations, coursework assignments (individual and group based), class tests (both unseen and open-book), practical laboratory tests (both unseen and open-book) and

presentations (individual and group based). In project modules students produce an artifact, individual and group reports and also give presentations.

Most coursework assignments involve undertaking a significant element of independent study and implementing associated practical tasks within a given deadline. Students are thus required to develop independent responsibility, plan their learning, prioritise tasks and manage their time appropriately in order to successfully complete the assignment (D8,D9,D10, D15).

Many assignments require students to retrieve and utilise information from a variety of sources both research and commercially based (D6, D18).

Tutorial work requires students to present their work (and consider the work of others), in both written and oral form (D4,D17).

As well as the Integrated Projects at levels 1-3 being team based, significant use of group based coursework is also prevalent throughout the programme and is used to develop communication and team working skills (D4, D16)

An examplar programme assessment loading is given below (Fig 1).

The initial achievement and development of the range of transferable/key life skills (D1-D18) are also incorporated within the personal development planning process. This forms part of the learning strategy for the students to ensure that they undertake effective planning for their own personal, educational and career development. They will be supported throughout the programme by an advisor who will direct them through the process, and help them to develop effective techniques for reviewing progress. Students will identify outcomes at an early stage and review their progress as the programme develops. A key element in the process is to foster the employability of graduates. Students will be encouraged to make use of the University Career Centre and other mechanisms in order to develop an awareness of the industry and identify career opportunities. Students will also be encouraged to attend relevant research seminars and professional body branch meetings.

 Assessment of transferable/key skills is manifested mostly through the various coursework assessments with the development of these skills resulting in work of higher quality. Specifically however, effective team performance forms an explicit part of all group coursework assessment and the Integrated Project Modules. The projects also specifically assess communication skills via both their presentations and report.

Industrial Placement:

The additional professional career-based skills build upon the corresponding skills obtained in the Degree programme. Additional teaching and learning is achieved on placement through the supervision of the student in a programme of work-related tasks. An Industry based supervisor (from the work place) and a University based supervisor (a member of academic staff) provides the supervision. The student is prepared for placement through the programme's Employability and Career Planning programme which all students undertake during level 3. The assessment of the skills is through a review of the placement performance based on a set of industry and university supervisor reports, a set of industrial experience reports by the student and a placement-based study project.

4. PROGRAMME STRUCTURES AND REQUIREMENTS, LEVELS, MODULES, CREDITS AND AWARDS

4.1 FULL TIME DELIVERY

Year 1			Module Title	Credits
SHE1 Level				
Trimester A				
M1I325623	1	A	Fundamentals of Computer Systems	10
M1I322908	1	A	Fundamentals of Software Engineering	20
M1I325617	1	A	Programming 1	20
Trimester B				
M1I325624	1	B	Fundamentals of Network and Cloud Computing	10
M1I325625	1	B	Database Development	20
M1I325668	1	B	Integrated Project 1	20
M1N325479	1	B	Fundamentals of Financial Management	20
Exit Award – Certificate of Higher Education in Computing				*120*
Year 2			**Module Title**	**Credits**
SHE2 Level				
Trimester A				
M2I325618	2	A	Programming 2	20
M2I322952	2	A	Object Oriented Analysis & Design	20
M2N225534	2	A	Management Issues and Concepts	20
Trimester B				
M2I625666	2	B	Human Computer Interaction	20
M2I325626	2	B	Web Application Development	20
M2I325669	2	B	Integrated Project 2	20
Exit Award – Diploma of Higher Education in Computing				*240*
Year 3			**Module Title**	**Credits**
SHE3 Level				
Trimester A				
M3I322913	3	A	IT Project Management 1	20
M2N426567	2	A	Financial Management for Decision Makers	20
M3N225568	3	A	International Business Strategy	20
Trimester B				
M3I326184	3	B	Research Skills & Professional Issues	20
M3W225670	3	B	Integrated Project 3	20
M3I325687	3	B	DevOps	20
Exit Award – BSc IT Management for Business				360
Year 4			**Module Title**	**Credits**
SHEH Level				
Trimester A				
MHW225671	H	AB	Honours Project	40*
MHI325698	H	A	Business Process Modelling	20

MHI225680	H	A		Machine Learning and Data Analytics	20

Trimester B

MHW225671	H	AB		Honours Project	40*
MHI322925	H	B		IT Project Management 2	20
			One Elective from:		
MHN125559	H	B	Elective:	Managing Sustainable Business Excellence	20
MHI326841	H	B	Elective:	Mobile Platform Development	20
MHI325614	H	B	Elective:	Cloud Platform Development	20
MHI625658	H	B	Elective:	Artificial Intelligence	20

Exit Award – BSc (Hons) IT Management for Business   480

Industrial Placement Year (Optional) Exit Award.
Students opting to undertake placement do so in the academic session after level 3 studies. Assessment is via the additional 60 SHE credit level 3 module, M3I323077 Industrial Placement. Successful completion of that module gives (Sandwich) in the final exit award obtained by the student.
Exception to Undergraduate Assessment Regulations, Sub-sections 19.4; 19.7.1; 19.8.2 Classification of Honours Award: *that the Level 3 Industrial Placement module is excluded from the Honours Classification Calculation Set.*

Student Exchange (Optional). After successful completion of Level 3 Trimester A students may be eligible to undertake an optional study exchange during Trimester B at an appropriate host Institution out-with the UK, provided the agreed programme of activity is equivalent to the curriculum and intended student experience undertaken in Level 3 Trimester B. Successful completion of the study exchange is credit bearing to 40 credits and students must undertake this alongside the pre-requisite module, Research Skills & Professional Issues (CSN) (20 credits) for a total of 60 credits

PART TIME DELIVERY

Year 1				Module Title	Credits
SHE1 Level					
Trimester A					
M1I325623	1	A		Fundamentals of Computer Systems	10
M1I325617	1	A		Programming 1	20
M1N325479	1	B		Fundamentals of Financial Management	20
Trimester B					
M1I325624	1	B		Fundamentals of Network and Cloud Computing	10
M1I325625	1	B		Database Development	20

Year 2			Module Title	Credits
SHE1/2 Level				
Trimester A				
M1I322908	1	A	Fundamentals of Software Engineering	20
M2N225534	2	A	Management Issues and Concepts	
Trimester B				
M1N325479	1	B	Fundamentals of Financial Management	20
M1I325668	1	B	Integrated Project 1	20
Exit Award – Certificate of Higher Education in Computing(120 required)				*160*

Year 3			Module Title	Credits
SHE2 Level				
Trimester A				
M2I325618	2	A	Programming 2	20
M2I322952	2	A	Object Oriented Analysis & Design	20
Trimester B				
M2I322954	2	B	Database Development	20
M2I325626	2	B	Integrated Project 2	20
Exit Award – Diploma of Higher Education in Computing (240 required)				*240*

Year 4			Module Title	Credits
SHE2/3 Level				
Trimester A				
M2N426567	2	A	Financial Management for Decision Makers	20
M3N225568	3	A	International Business Strategy	20
Trimester B				
M3W225670	3	B	Integrated Project 3	20
M2I625666	3	B	DevOps	20

Year 5				Module Title	Credits
SHE3/H Level					
Trimester A					
M3I322913	3	A		IT Project Management 1	20
MHI225680	H	A		Machine Learning and Data Analytics	20
Trimester B					
M3I326184	3	B		Research Skills & Professional Issues	20
			One Elective from:		
MHN125559	H	B	Elective:	Managing Sustainable Business Excellence	20
MHI625658	H	B	Elective:	Artificial Intelligence	20
MHI325614	H	B	Elective:	Cloud Platform Development	

MHI326841	H	B	Elective:	Mobile Platform Development		

Exit Award – BSc IT Management for Business (360 required) **400**

Year 6			Module Title		Credits
SHEH Level					
Trimester A					
MHW225671	H	AB	Honours Project		40*
MHI325698	H	A	Business Process Modelling		20
Trimester B					
MHW225671	H	AB	Honours Project		40*
MHI322925	H	B	IT Project Management 2		20

Exit Award – BSc (Hons) IT Management for Business **480**

Industrial Placement Year (Optional) Exit Award.
Students opting to undertake placement do so in the academic session after level 3 studies. Assessment is via the additional 60 SHE credit level 3 module, M3I323077 Industrial Placement. Successful completion of that module gives (Sandwich) in the final exit award obtained by the student.
Exception to Undergraduate Assessment Regulations, Sub-sections 19.4; 19.7.1; 19.8.2 Classification of Honours Award: *that the Level 3 Industrial Placement module is excluded from the Honours Classification Calculation Set.*

Student Exchange (Optional). After successful completion of Level 3 Trimester A students may be eligible to undertake an optional study exchange during Trimester B at an appropriate host Institution out-with the UK, provided the agreed programme of activity is equivalent to the curriculum and intended student experience undertaken in Level 3 Trimester B. Successful completion of the study exchange is credit bearing to 40 credits and students must undertake this alongside the pre-requisite module, Research Skills & Professional Issues (CSN) (20 credits) for a total of 60 credits

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5. SUPPORT FOR STUDENTS AND THEIR LEARNING

- Induction Programme
- Programme and Module Handbooks
- Year Tutors
- Project Co-ordinators
- Personal tutors in accordance with the GCU Personal, Professional, Academically Informed, Consolidated, Transitional (PPACT)
- Employability and Career Planning programme
- Personal Development Planning
- Study Guides for projects and coursework
- Saltire Learning Centre with access to other local and national library resources
- Student e-mail and programme/module based Virtual Learning Environment facilities (GCULearn)
- Departmentally based PC Computer Laboratories equipped with the full range of software used on the programme.
- Open access to Departmental and University Computer facilities including access to the 24 hour computing

laboratory
- Specialist Computer Laboratories e.g. E-Motion Laboratory, ITT Laboratory
- Supply of specific proprietary programme software for home use to provide additional study and work access
- Open access to teaching staff including the Programme Leader
- Access to the Base which provides support, assistance and guidance to students
- SEBE Learning Development Centre which provides specific study skills support and guidance
- Web based learning facilities
- Access to University Careers Centre
- Professional and Industry Body Contacts (including The Tech Partnership Guru lectures, competitions and employability events)
- Student representatives on the Programme Board
- Student representatives on Senate and its Standing Committees
- Student Staff Consultative Group

For Students who undertake the Optional Placement:
- Preparation programme to assist students in obtaining placement.
- Specified staff roles (Placements Tutor and Placements Administrator) to assist with identifying specific placement opportunities and helping students in applying for placements.
- When in placement liaison is conducted between University and Industry based supervisors. Planned reviews and visits of student when in placement.

For students who undertake the programme part-time:
- Materials are made available in flexible formats.

6. CRITERIA FOR ADMISSION

Candidates must be able to satisfy the general admissions requirements of Glasgow Caledonian University

Programme Admission Requirements:

Standard First Year Entry Requirements

The minimum entrance requirements for entry into the first year of the programme are one of the following:
- SQA passes in 5 subjects of which at least 4 are at Higher Grade
- GCE passes in 5 subjects of which 2 are Advanced level (or equivalent)
- An appropriate program of SQA National Certificate Course units which must include passes in modules which are at least equivalent to SQA/GCE English and Mathematics at Ordinary/ Standard grade at Credit level
- HNC in Computing/IT or Equivalent
- BTEC National Diploma in Computing/IT
- IT Access course or equivalent
- Advanced GNVQ in IT
- Irish Leaving Certificate – 5 subjects passed at H level (at least C grade) or equivalent

- International qualifications which are equivalent to standard entry (in these cases appropriate EOSL qualification is required)

In all of the above cases, the qualifications must include SCE/GCE pass in English at Standard grade at Credit level (or equivalent) and Mathematics at Higher grade C (or equivalent)

Annually the Programme Board also considers the competitive entry requirements based on student demand and allocated places.

Admission requirements for 2018 entry into first year are:

HIGHERS	UCAS Tariff Points	To include specific grades **ABBC or equivalent**
	Essential subjects **Maths or Computing**	Recommended subjects **English or another subject requiring high levels of written communication skills**

Recognition of Prior Learning:

Accumulation of credit points from other Courses and from prior experiential learning may allow direct entry into the programme at the appropriate level, subject to satisfying the necessary pre-requisites for completion of the programme.

Articulation to Level 2 and Level 3

Given the requirements of the accrediting body it is not currently anticipated that articulation to year 3 will be routinely available. Students will, instead, be encouraged to apply for articulation onto the BSc Computing programme. Individual students who can demonstrate appropriate prior study and appropriate levels of industrial experience may, exceptionally, be considered for entry into level 2.

Mature and overseas students: specific requirements
Formal entry requirements may be relaxed for mature applicants (21 years of age and older) whose record of educational achievement and relevant experience is deemed to be appropriate. Non-standard applicants will normally be interviewed to assess their suitability for the programme.

Additionally, overseas students require to demonstrate an appropriate level of competence in written and spoken English, if their entry qualification was not delivered and assessed in English.

Equal Opportunities
The University will seek at all times equality of opportunity for all applicants and seeks not to discriminate on any grounds irrelevant to the above general principle of admission.

Applicants with a disability
All applicants for admission to the programme who reveal a disability will be invited to a meeting with the Admissions Tutor and/or University Disability Adviser in order that the specific needs of the applicant can be assessed. This is not part of the selection process but students may be advised at this stage if the nature of their disability means that they might be unable to fulfil the academic or professional requirements of the programme. Equally it may not be possible for the University to make reasonable adaptations to enable an applicant to undertake a particular programme. Should this be the case, the University will respond positively and advice on alternative programmes and options will be offered.
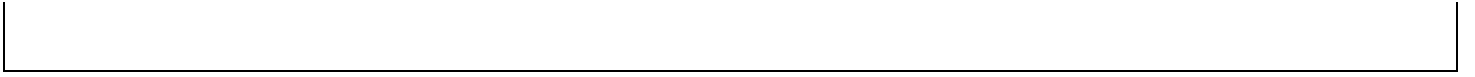
7. METHODS FOR EVALUATING AND IMPROVING THE QUALITY AND STANDARDS OF TEACHING AND LEARNING

Mechanisms for review and evaluation of teaching, learning, assessment, the curriculum and outcome standards:

- Annual Module Monitoring Process
- Annual Programme Monitoring Process/ Continuous Quality Improvement Plan
- Module Feedback Questionnaire
- External Assessor reports
- Annual monitoring (required by Professional and/or Statutory Bodies)
- Enhancement-led Internal Subject Review (ELISR)
- Enhancement-led Institutional Review (ELIR)
- Annual report to external accrediting bodies
- Reports from Professional/Statuary Body
- Academic strategy review and development by School Learning and Teaching Committee(SLTC)
- School based quality procedures for moderation of assessments (Exam and Coursework)

Committees with responsibility for monitoring and evaluating quality and standards:
- Student-Staff Consultative Group (SSCG)
- Programme Board (PB)
- School Board
- Assessment Board (AB)
- University Learning and Teaching Sub-Committee (LTSC)
- University Academic Policy and Practice Committee (APPC)
- University Senate
- School Learning and Teaching Committee (SLTC)
- Undergraduate Assessment Board

Mechanisms for gaining student feedback on the quality of teaching and their learning experience:
- Student-Staff Consultative Group (SSCG)
- Student representation on Programme Board (PB)
- Student representation on School Board
- Module Feedback Questionnaire
- GCULearn
- Open access to members of Programme Team e.g. Module Leaders, Programme Leader, Personal Tutor, Year Tutor
- Placement Reports
- NSS

Staff development priorities include:
- Postgraduate Certificate in Learning and Teaching
- Continuous Professional Development (CPD)
- Performance and Development Annual Review (PDAR)
- Peer support for teaching
- Mentoring scheme for new teaching staff
- Conference and seminar attendance and presentation

- Research Excellence Framework (REF) submission
- Membership of Higher Education Academy (HEA)
- Membership of and involvement with Professional Bodies
- Regular Programme Team and Subject Group meetings
- Institutional learning and teaching workshops

8. ASSESSMENT REGULATIONS

The Glasgow Caledonian University Regulations
(http://www.gcu.ac.uk/media/gcalwebv2/theuniversity/gaq/gaqfiles/University%20Assessment%20Regulations%20 2013_14.pdf) apply to this programme

Assessment rules and Honours classification:-
- Minimum pass mark is (40%) for each module.
- Overview of assessment details are provided in the Student Handbook for the programme and a copy of full assessment regulations are available from the University web site
- To progress to Honours a student must have gained 360 credits in total, of which at least 60 are at SHE3
- To qualify for an award a student must complete all the programme requirements and obtain 360 SHE credit points for the Unclassified degree (BSc) and 480 SHE credit points for the Honours degree (BSc Hons)

Summary of classifications, marks and their interpretation for honours degree classification

Classification	Marks	Interpretation
1st	70% - 100%	Excellent: Marks represent a first class performance
2nd/Upper	60% - 69%	Very Good: Marks represent an upper second class performance
2nd/Lower	50% - 59%	Good: Marks represent a lower second class performance
3rd	40% - 49%	Satisfactory: Marks represent a third class performance

The calculation for the award and final classification of the Honours Degree is on the basis of the best 180 SHEH and SHE3 credits, of which a minimum of 90 must be at SHEH. The Dissertation/Project at level H must be included in this set.

If a student enters directly into Level H, then the marks from the taught 4th year only contribute to the award and final classification of the Honours Degree.

Role of External Assessor:

External Assessors are appointed to Undergraduate Assessment Boards. The duties of an External Assessor will include the following:

- To moderate the work of the Internal Assessors in respect of the assessments under his/her jurisdiction
- To attend Assessment Boards at which the results of a final stage assessment will be determined
- To satisfy himself/herself that the work and decisions of the Assessment Board(s) are consistent with the policies and regulations of the University and best practice in higher education
- To ensure that students are assessed within the regulations approved by the University for the programme and to inform the University on any matter which, in his/her view, militates against the maintenance of proper academic standards
- To report annually to the School's Learning and Teaching Committee on the standards attained by students on the programme and on any other matters which may seem appropriate for report

9.	**INDICATORS OF QUALITY AND STANDARDS**

Internal Indicators
- Details of approval, development events and Enhancement Led Internal Subject Reviews organised by the School/University
- Annual Programme Monitoring and development of programme's Continuous Quality Improvement Plan
- Annual module performance monitoring
- Prizes awarded by the School for outstanding performance

External Indicators
- Professional/Statutory Body accreditation visits and reports
- Quality Assurance Agency subject reviews
- External Assessor Reports

10.	**INFORMATION ABOUT THE PROGRAMME**

Key information about the programme can be found in:

Programme Approval Submission Document
Student Handbook
University Web Site
University Prospectus
Module Catalogue
Divisional publications

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 he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning assessment methods of each module can be found in the University Module catalogue which can be accessed from the University web-site. The accuracy of the information in this document is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.

A curriculum map is presented in the following section and shows how the outcomes are developed and assessed within the programme. This relates the modules shown in Section 4 to the outcomes in Section 3.

CURRICULUM MAP for BSc/BSc (Hons) Information Technology Management for Business
PSMAP

The curriculum map links the modules (Section 4) to the Outcomes listed in Section 3
This map provides both a design aid to help academic staff identify where the programme outcomes are being developed and assessed within the course. It also provides a check list for quality assurance purposes and could be used in approval, accreditation and external examining processes. This also helps students monitor their own learning, and their personal and professional development as the course progresses. The map shows only the main measurable learning outcomes which are assessed. There are additional learning outcomes (e.g. attitudes and behaviour) detailed in the module specifications which are developed but do not lend themselves to direct measurement

Modules   Programme outcomes

SHE Level	Module Code	Module Title	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	C1	C2	C3*	C4	C5*
LEVEL 1	M1I325623	Fundamentals of Computer Systems	x								x								
	M1I325617	Programming 1		x	x					x					x	x			
	M1I322908	Fundamentals of Software Engineering		x	x	x					x	x			x		x		x
	M1I325625	Database Development	x	x	x	x				x	x	x			x	x			
	M1I325624	Fundamentals of Network and Cloud Computing	x						x		x								
	M1I325668	Integrated Project 1			x	x	x	x		x	x				x	x	x	x	x
	M1N325479	Fundamentals of Financial Management							x		x							x	x
LEVEL 2	M2I322952	Object-oriented Analysis and Design		x		x				x	x	x			x		x		
	M2I325618	Programming 2		x	x					x	x				x	x			
	M2I325626	Web Application Development 1	x	x	x					x		x			x	x			
	M2I625666	Human Computer Interaction	x	x	x	x				x	x	x	x			x	x		
	M2I325669	Integrated Project 2			x	x	x	x		x	x		x		x	x	x	x	x
	M2N225534	Management Issues and Concepts					x	x	x		x		x					x	x
	M2N426567	Financial Management for Decision Makers							x		x							x	x

SHE Level	Module Code	Module Title	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	C1	C2	C3*	C4	C5*
LEVEL 3	M3I322913	IT Project Management 1				x	x	x			x	x					x	x	x
	M3N225568	International Business Strategy							x			x		x				x	
	M3I326184	Research Skills and Professional Issues		x			x				x		x	x					x
	M3W225670	Integrated Project 3			x	x	x	x		x	x		x	x	x	x	x	x	x
	M3I325687	Devops	x	x	x	x			x	x	x	x	x					x	
LEVEL H	MHW225671	Honours Project			x	x	x		x		x	x	x	x	x				x
	MHI225680	Machine Learning and Data Analytics		x	x				x		x	x				x			
	MHI322957	Business Process Modelling			x	x				x	x	x	x			x		x	
	MHI322925	IT Project Management 2				x	x	x				x					x	x	x
	Level H electives																		
	MHI325614	Cloud Platform Development	x	x					x	x	x	x				x	x		
	MHN125559	Managing Sustainable Business Excellence					x	x		x	x	x	x	x				x	x
	MHI625658	Artificial Intelligence		x	x				x		x	x				x			
	MHI326841	Mobile Platform Development	x	x	x	x		x	x	x	x			x	x		x		

Modules   Programme outcomes

SHE Level	Module code	Module Title	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18
LEVEL1	M1I325623	Fundamentals of Computer Systems	x	x	x	x	x					x		x			x	x		
	M1I325617	Programming 1	x	x		x	x		x	x	x	x					x			
	M1I322908	Fundamentals of Software Engineering	x	x		x	x		x	x		x		x	x		x			x
	M1I325625	Database Development	x	x	x	x	x		x	x							x			
	M1I325624	Fundamentals of Network and Cloud Computing	x	x	x	x	x		x	x	x						x			x
	M1I325668	Integrated Project 1		x		x		x	x	x	x		x	x	x	x	x	x	x	x
	M1N325479	Fundamentals of Financial Management	x	x		x	x		x									x		
LEVEL 2	M2I322952	Object Oriented Analysis & Design	x	x		x			x	x	x						x	x		
	M2I325618	Programming 2	x	x	x	x	x		x	x	x	x					x			
	M2I325626	Web Application Development 1	x	x		x			x	x	x						x			
	M2I625666	Human Computer Interaction	x	x					x			x					x	x	x	
	M2I325669	Integrated Project 2		x		x		x	x	x	x			x	x		x	x	x	x
	M2N225534	Management Issues and Concepts	x	x	x	x											x	x		
	M2N426567	Financial Management for Decision Makers	x	x		x	x		x								x	x		
LEVEL 3	M3I322913	IT Project Management 1	x	x	x	x	x		x	x	x		x	x			x	x		x
	M3N225568	International Business Strategy	x	x	x	x		x		x			x					x		
	M3I326184	Research Skills and Professional Issues	x		x	x		x		x					x		x		x	x
	M3W225670	Integrated Project 3		x		x		x	x	x	x		x	x	x	x	x	x	x	x
	M3I325687	DevOps	x	x	x	x			x	x	x	x					x			

SHE Level	Module Code	Module Title	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18
LEVEL H	MHW225671	Honours Project	x	x	x	x		x	x	x	x	x		x	x		x		x	
	MHI225680	Machine Learning and Data Analytics	x	x	x	x	x		x	x		x					x			x
	MHI325698	Business Process Modelling	x	x	x	x	x		x	x		x					x			
	MHI322925	IT Project Management 2	x	x	x	x	x	x	x	x	x	x		x	x		x	x	x	x
	Level H electives																			
	MHI325614	Cloud Platform Development	x	x	x				x	x										x
	MHN125559	Managing Sustainable Business Excellence	x	x	x	x		x		x			x		x		x	x		
	MHI625658	Artificial Intelligence	x	x	x	x	x		x	x		x					x			x
	MHI326841	Mobile Platform Development	x	x	x	x		x	x	x	x			x	x		x			

Modules   Programme outcomes

SHE Level	Module code	Module Title	E1	E2	E3	E4
LEVEL 3	M3I323077	Industrial Placement	x	x	x	x

BSc/BSc (Hons) Information Technology Management for Business
ASSESSMENT LOADING MATRIX

Year 1									
Module Code	**Module Title**	**Trimester**	**Credits**	**Assessment Weighting**					
				Cw1	**Cw2**	**Cw3**	**Exam1 (Exams Office)**	**Ex2 (Exams Office)**	**Ex3 (Class Test)**
M1I325623	Fundamentals of Computer Systems	A	10	50%	50%				
M1I322908	Fundamentals of Software Engineering	A	20	50%	50%				
M1I325617	Programming 1	A	20	30%	70%				
M1N325479	Fundamentals of Financial Management	B	20	20%	20%		60% (alt)		
M1I325624	Fundamentals of Network and Cloud Computing	B	10	50%	50%				
M1I325625	Database Development	B	20	100%					
M1I325668	Integrated Project 1	B	20	100%					
EXIT AWARD: Certificate of Higher Education									

Year 2									
Module Code	**Module Title**	**Trimester**	**Credits**	**Assessment Weighting**					
				Cw1	**Cw2**	**Cw3**	**Exam1 (Exams Office)**	**Ex2 (Exams Office)**	**Ex3 (Class Test)**
M2I325618	Programming 2	A	20	100%					
M2I322952	Object Oriented Analysis & Design	A	20	50%			50% (alt)		
M2N225534	Management Issues and Concepts	A	20	50%			50% (alt)		
M2I625666	Human Computer Interaction	B	20	60%	40%				
M2I325669	Integrated Project 2 (CCIS)	B	20	100%					
M2I325626	Web Application Development	B	20	100%					
EXIT AWARD: Diploma of Higher Education									
5									

Year 3									
Module Code	**Module Title**	**Trimester**	**Credits**	**Assessment Weighting**					
				Cw1	**Cw2**	**C w 3**	**Exam1 (Exams Office)**	**Ex2 (Exams Office)**	**Ex3 (Class Test)**
M3I322913	IT Project Management 1	A	20	50%			50% (alt)		
M2N426567	Financial Management for Decision Makers	A	20	40%			60% (alt)		
M3N225568	International Business Strategy	A	20	50%	50%				
M3I325687	DevOps	B	20	50%	50%				
M3I326184	Research Skills & Professional Issues	B	20	30%	70%				
M3W225670	Integrated Project 3	B	20	100%					
EXIT AWARD: Bachelor Degree									

Year 4									
MHI222956	**Module Title**	**Trimester**	**Credits**	**Assessment Weighting**					
				Cw1	**Cw2**	**C w 3**	**Exam1 (Exams Office)**	**Ex2 (Exams Office)**	**Ex3 (Class Test)**
MHI225680	Machine Learning and Data Analytics	A	20	50%			50% (alt)		
MHI325698	Business Process Modelling	A	20	50%			50% (alt)		
MHW225671	Honours Project	AB	40	100%					
MHI322925	IT Project Management 2	B	20	50%			50% (alt)		
MHI325614	Cloud Platform Development **(option)**	B	20	50%			50% (alt)		
MHI326841	Mobile Platform Development (**option**)	B	20	100%					
MHN125559	Managing Sustainable Business Excellence **(option)**	B	20	50%	50%				
MHI625658	Artificial Intelligence **(option)**	B	20	100%					
EXIT AWARD: Bachelor Degree with Honours									