

## Programme Specification for BSc (Hons) Computing

<b>This document applies to Academic Year 2019/20 onwards</b>
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1.	<b>Awarding institution/body</b>	University of Worcester
2.	<b>Teaching institution</b>	University of Worcester
3.	<b>Programme accredited by</b>	N/A
4.	<b>Final award or awards</b>	BSc (Hons)
5.	<b>Programme title</b>	Computing
6.	<b>Pathways available</b>	Single, Joint, Top-up, Major/Minor Options for current Joint Honours combinations and UCAS codes can be found at: <a href="https://www.worcester.ac.uk/study/find-a-course/joint-degrees/joint-degrees.aspx">https://www.worcester.ac.uk/study/find-a-course/joint-degrees/joint-degrees.aspx</a>
7.	<b>Mode and/or site of delivery</b>	Taught modules at the University of Worcester
8.	<b>Mode of attendance</b>	Full time, part time, optional work placement year
9.	<b>UCAS Code</b>	BSc (Hons) Computing (and top-up) – G400 BSc (Hons) Computing with placement year – I100
10.	<b>Subject Benchmark statement and/or professional body statement</b>	<a href="#">QAA Subject Benchmark Statement: Computing (2016)</a>
11.	<b>Date of Programme Specification preparation/ revision</b>	Course re-approved March 2019 August 2019, AQU amendments to Section 19 October 2019 AQU amendment re Joint Honours (Sections 6 and 19).

### 12. Educational aims of the programme

This programme aims to provide opportunities to acquire/develop skills in a wide range of topics spanning the entire area of computing. The choice of topics can be tailored to suit interests and ambitions, such as security, software consultancy, software engineering and data analysis. The programme uses a variety of methods to prepare students for various employment opportunities by developing work-related skills such as computing competencies, project management, and team work. It also aims to meet computing curriculum recommendations and aims developed by BCS (British Computer Society), IEEE (Institute of Electrical and Electronics Engineers) and ACM (Association of Computing Machinery). In particular, the purpose of the programme is to:

1. Provide opportunities to acquire/develop skills in modules on a wide range of topics spanning the entire area of computing.
2. Engage students in the study of the nature of computation, effective ways to exploit computation, and the practical limitations of computation in application terms.
3. Prepare students for future employment and lifelong learning in a professional, technical, legal and ethical framework, with the ability to draw up goals, objectives and self-development plans
4. Integrate theory and practice in order to obtain an appreciation of a range of applications and their impact on users
5. Develop students generic skills, an ability to work under guidance and as a team member
6. Provide opportunities for students to engage in work-based experiential learning as an integral part of the programme
7. Enable students to produce small well-constructed programs to solve well-specified problems

8. Engage students in the understanding and application of 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
9. Enable students to produce work involving problem identification, analysis, design, development and testing of a system with accompanying documentation, recognising the important relationships between these stages and showing problem solving and evaluation skills drawing on supporting evidence
10. Enable students to become self-directed learners able to acquire new skills as necessary

### 13. Intended learning outcomes and learning, teaching and assessment methods

#### BSc (Hons) Computing

##### ***Knowledge and understanding***

<b>LO no.</b>	<b>On successful completion of the named award, students will be able to:</b>	<b>Module codes</b>
1.	Appreciate the concepts of Computing and their relevance to everyday life.	COMP2411 COMP3402
2.	Demonstrate knowledge and understanding of theories, concepts, principles and facts relating to computing and computer applications.	COMP2411 COMP3402
3.	Demonstrate knowledge of core disciplines of computing including: programming, games, web, and databases.	COMP2421 COMP2431 COMP2441
4.	Comprehend the practical requirements for computer-based systems including the recognition and analysis of criteria and models leading to specifications used in the solution of specific problems.	COMP2411 COMP3401
5.	Recognise key technology changes affecting the running of computer operations within organisations and how this could affect their future software implementations.	COMP3402

##### ***Cognitive and intellectual skills***

<b>LO No.</b>	<b>On successful completion of the named award, students will be able to:</b>	<b>Module codes</b>
6.	Appreciate the role of evaluation and testing in ensuring that computer-based systems meet the criteria for their defined use and future developments.	COMP2411
7.	Demonstrate understanding of methods, tools and approaches to specify, design, implement and evaluate computer systems.	COMP2411
8.	Reflect on and communicate computing principles, orally, textually or using electronic media, including an assessment of the impact of new technologies.	COMP3402
9.	Recognise the professional, economic, social, moral environmental, and ethical issues involved in the sustainable deployment of computing.	COMP2411
10.	Exhibit problem solving skills in dealing with complex issues of systems development and design.	COMP2411 COMP3401

##### ***Skills and capabilities related to employability***

<b>LO No.</b>	<b>On successful completion of the named award, students will be able to:</b>	<b>Module codes</b>
11.	Initiate and implement projects.	COMP2411 COMP3401
12.	Show ability to operate, specify, design, construct, test, document and maintain reliable, secure and usable computer-based systems and applications.	COMP2411
13.	Evaluate quality and trade-offs in systems.	COMP2411 COMP3401
14.	Recognise risk, safety, legal or accessibility aspects associated with deployment of various computer-based systems.	COMP2411
15	Understand practical requirements for computer-based systems including recognising, formulating and analysing criteria leading to specifications used to solve specific problems within constraints of requirements, timescale and budget.	COMP2411 COMP3401

<b>Transferable/key skills</b>
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<b>LO No.</b>	<b>On successful completion of the named award, students will be able to:</b>	<b>Module codes</b>
16.	Exhibit information-retrieval skills such as the use of browsers and search engines and evaluating sources of information.	COMP2411 COMP3401
17.	Display numeracy and literacy in both understanding and presenting cases of both a qualitative and a quantitative nature.	COMP2411 COMP3401
18.	Show ability to work as a member of a team, recognizing different roles within the team, and various ways of organizing teams.	COMP2411
19.	Manage individual learning and development, including organization, time-management development and lifelong learning.	COMP3401
20.	Demonstrate research skills such as planning research, gathering and analysis of primary data.	COMP2411 COMP3401
21.	Understand future generators of sustainable values.	COMP3401 COMP3402

Students following a joint pathway will have met the majority of the learning outcomes for both subjects, although the range of knowledge and discipline specific understanding in terms of options or specialisms will be more restricted than for a single honours student.

The programme adopts a progressive structure of:

<b>Level 4</b>		<b>Level 5</b>		<b>Level 6</b>
Foundations	→	Operations	→	Employment-focus

with the intention of supporting progression across the intended range of cognitive, academic, practical and transferable skills appropriate to both study on the programme and future employment. The curriculum design approach has enabled the development of planned, integrated and progressive learning, teaching and assessment strategies for the programme. The mix of 15 and 30 credit modules offers a rich learning experience for students and the inclusion of innovative assessment strategies supports learning and achievement. Level 4 mandatory modules offer a clear foundation of computing fundamentals.

Particular care has been taken to ensure that the core modules provide an appropriate structure within which:

- to acquire and build knowledge and understanding

- to develop and progress – at all three levels of study - across the intended range of cognitive, academic, practical and transferable skills appropriate to both study on the programme and future employment including higher order critical thinking skills;
- to develop a proactive approach to change, a sensitivity to computing, web and games issues;
- the opportunity to develop and experience a variety of complementary approaches to learning and teaching and a good balance of activities.

Integration between practice and theory is provided by:

- the opportunity to undertake a one-year work placement
- the core modules of COMP1421 and COMP2411 require students to reflect on their learning and individual experiences of organisations, their environment and management. Such experiences will also be acquired through other modules, for example via exposure to visits and other inputs from practising managers, simulation of real-life scenarios via case studies or modelling.

Examples of innovative academic practice include:

- Inclusion of digital content in several digital marketing, and e-business modules
- Innovative 'drone applications' module which is the first drone module in the UK for undergraduate curriculum incorporating business concepts
- Modules incorporating 'big data' and analytics concepts at Level 6.

### **Learning, teaching and assessment**

As a result of a collaborative effort with colleagues across the Business School and in alignment with key factors relating to the [University Learning and Teaching Strategy](#), the following strategic goals have been identified to shape the Business School's approach to learning and teaching.

1. Ensuring intellectually challenging modules which are integrated and have clear continuity across all levels
2. Incorporate coherent continuous assessment strategies with embedded formative and summative feedback approaches
3. Ensure key skills around research, employability and digital literacy are embedded into learning and teaching
4. To develop a sense of belonging and awareness among students through communication, towards shaping mind-sets and building a more cohesive culture.
5. To transform the approach to personal academic tutoring through tutor-led mentoring.

The learning and teaching methods employed in this course will provide students with a range of opportunities to develop the skills necessary to apply computing theories and practice to a variety of situations.

### **Learning and teaching methods used will include:**

Tutor-led direct contact, University-based teaching days, including such methods as structured lectures, interactive seminars, flipped lectures, group discussions and activities, co-operative learning, individual tutorials, real-world case studies, oral presentations, mock examinations, virtual trading simulations, hands-on experience working with spreadsheets and market leading business analysis software, computer based tests, guest speaker inputs, work based learning, work placements and self-directed research. Students do not merely learn in isolation and using the university Virtual Learning Environment allows for online collaborative activities to take place.

### **Professional Bodies**

Computing modules have been mapped to take advantage of curriculum recommendations and aims developed by three professional bodies (BCS, (British Computing Society) IEEE (Institute of Electrical and Electronics Engineers) and ACM (Association of Computing Machinery).

## **Teaching**

Students are taught through a combination of interactive workshops, lectures, seminars, laboratory practical sessions, fieldwork, practical activities, etc. Interactive workshops take a variety of formats and are intended to enable the application of learning through discussion and small group activities. Seminars enable the discussion and development of understanding of topics covered in lectures, and laboratory practical sessions are focused on developing subject specific skills and applied individual and group project work.

In addition, meetings (both individual and group) with personal academic tutors are scheduled throughout the academic year. There is an opportunity to undertake a year-long placement in the third year of the course, supervised by a work-based mentor and a University tutor. Depending upon the course, there may be an opportunity to study abroad at one of the exchange partner universities.

The University places emphasis on enabling students to develop the independent learning capabilities that will equip them for lifelong learning and future employment, as well as academic achievement. A mixture of independent study, teaching and academic support from Student Services and Library Services, and also the personal academic tutoring system enables students to reflect on progress and build up a profile of skills, achievements and experiences that will help them to flourish and be successful graduates.

## **Contact time**

In a typical week there will be at least 12 hours of timetabled teaching in lectures, seminars and small-group work. The precise contact hours will depend on the optional modules selected. If the degree requires a Research or Consultancy Project, students will have guided supervision time with a Project Supervisor.

Typically class contact time will be structured around:

- Information giving, facilitated discussions, small group work, presentations
- Practical skills – the opportunity to practise group facilitation, presentation, communication and listening skills
- Visiting speakers and opportunities to visit other settings are regular features of the course.
- Most of the computing seminars take place in state-of-the-art PC labs using a variety of software specific to each module.

## **Independent self-study**

In addition to the contact time, full-time students are expected to undertake around 24 hours of personal self-study per week, plus additional preparation for assessments and examinations. Typically, this will involve meeting with individual tutors to discuss progress and feedback, completing online activities, reading journal articles and books, working on individual and group projects, undertaking research in the library and online. In addition to this, students will spend time sharing ideas with fellow students, taking part in extra-curricular learning activities and engaging with external employers.

Independent learning is supported by a range of excellent learning facilities, including the Hive and library resources, the virtual learning environment, and extensive electronic learning resources as well as our network of employers and entrepreneurs.

## **Teaching staff**

Students will be taught by a teaching team whose expertise and knowledge are closely matched to the content of the modules on the course. The team includes senior academics, professional practitioners with industry experience and business leaders and employers.

Teaching is informed by research and consultancy, and many lectures are Fellows of the Higher Education Academy. Teaching is informed by the research and consultancy work carried out by staff and staff profiles can be view at the [WBS Staff Profile Page](#).

### **Assessment**

The precise assessment requirements in an academic year will vary according to the mandatory and optional modules taken. The assessment strategy has been designed so that:

- All modules have both formative and summative assessment elements. Formative assessment allows tutors and students to recognise strengths and weaknesses in learning and to address those issues immediately. Summative assessments are graded and count towards the final module grade, and they are assessed against the specific module learning outcomes.
- Typically 15 credit/ one semester modules will have one assessment item; 30 credit/ two semester modules will have 2-3 assessments
- Across each individual year and cumulatively across all three years the concept of continuous assessment and/or building up expertise in different assessment types applies. A variety of assessment types (reports, portfolios, presentations, essays and a final year research or consultancy project) are designed to suit different learning styles
- Different types of employability skills are embedded in all modules.

### **Inclusivity**

The learning and teaching strategies for individual modules have been undertaken in accordance with the [University's Curriculum Design Policy](#). There is constructive alignment of the learning outcomes with teaching and learning approaches and assessment, research-informed teaching and Business School Employability Standards have been embedded within modules to meet the learning needs of a diverse range of learners.

### **Research**

The importance of research in the curriculum is a strategic goal of the Worcester Business School (WBS), and a variety of methods to enhance research into the curriculum are detailed:

- Research-informed teaching in enhancing students' learning experience is fully appreciated. Research-active tutors use their research within their disciplines and all tutors use research-inspired inquiry led learning, which keeps programmes of study current and relevant.
- Worcester Business School Employability Standard of Research and Problem-solving is covered by the majority of modules in the programme.
- A student-centred learning approach ensures that students learn through their own enquiry and the assessment strategy supports this through investigative, explorative and applied assessment tasks.
- Invitations to include eminent research-active guest speakers in modules is encouraged.
- Students also have the opportunity to engage with the Vacation Research Assistant (VRA) and Student as Academic Partners (SAP) schemes where projects are research-based.

**Internationalisation** is embedded in the curriculum and the programme also includes a number of modules with an international or global theme. Students study in a culturally diverse environment with peers and tutors from a range of cultural backgrounds. In addition they are encouraged to participate in the exchange programme to study abroad at a partner university (WORC3000) or an international work placement (BGMT3405).

**Please Note:** Students on Tier 4 visas must ensure that they remain compliant with UKVI regulations on attendance and engagement if they take up an opportunity to study

abroad. They should also be aware that taking up such an opportunity may compromise their immigration status in the UK so should take advice from the International Student Advisor before applying.

The themes of ethical and sustainable practice are addressed throughout the curriculum. Students are encouraged to evaluate their own courses of action in relation to organisational ethical dilemmas and to consider the implications of ecological changes for business and communities, now and in the future, and responses to these changes. The use of the VLE to provide learning materials and student support promotes the paperless/low carbon learning processes, as do online submission and marking of assignments.

#### **14. Assessment strategy**

A grid showing assessment methods and weightings mapped to modules at each level, together with an assessment calendar of submission dates is included in the course handbook.

The Assessment strategy has been designed to provide a variety of challenges appropriate to students on a multi-disciplinary academic undergraduate programme. Modules include assessments which encourage the development of academic and employability skills, wider reading and research and advanced scholarship.

Students will also have the opportunity to undertake more 'practical' assignments relevant to the real world of employment depending on the nature of the subject disciplines in which they choose to specialise. Examples could include portfolios of artefacts, web sites, mobile artefacts. A mixture of assignments is intentionally set in order to maximise opportunities for all students to perform and develop skills relevant to their future academic or professional careers.

An appropriate balance of formative and summative assessments is included. The assessment structure has been developed to support student learning by providing assessment procedures that reflect the nature of the learning experience of each module, and by ensuring that the students are able to demonstrate ability in a wide range of qualities and skills appropriate to the course. This structure is under continuous review via WBS quality enhancement procedures including student feedback, comments from the external examiner and other review processes.

Study and assessment at Level 4 is seen as being a formative process in preparation for Levels 5 and 6 when grades count towards the final degree classification. The majority of assessment methods that are used at Levels 5 and 6 will be initially encountered by students at Level 4. As a student progresses through the levels there is a stronger emphasis on critical synthesis and evaluation.

Marking of student work is internally and externally verified. Typically work is anonymously marked, except where this is impracticable (e.g. oral presentations). Student work is graded according to the [University's Generic Grade Descriptors Levels 4–6](#). Specific assessment criteria, which reflect the Intended Learning Outcomes are also published for each assessment. Constructive, timely and relevant feedback is an integral part of the assessment process.

#### **15. Programme structures and requirements**

##### ***Overview of the Course***

This award allows flexibility to study a broad range of aspects of modern-day computing. Year one provides essential Computing knowledge and skills, creating a solid foundation for future academic study and employment. Years two and three provide the opportunity to specialise in particular areas of interest. Graduates have a variety of career

opportunities including: website design, systems analysis, database design, software development, security analysis mobile technologies and IT services.

This is available in full-time or part-time mode and may be taken as a Single, Major, Joint, Minor, or top-up pathway for students progressing from HND Computing.

Single Honours students only may also take the course in sandwich mode with an optional one year placement between levels 5 and 6.

Please see appendix for award map.

#### 16. **QAA and professional academic standards and quality**

The academic standards for the programme have been set and are maintained in accordance with the [UK Quality Code for Higher Education](#). The Quality Code sets out expectations which higher education providers are required to meet to ensure that academic standards are set and maintained.

The [Frameworks for Higher Education Qualifications](#) of UK Degree-Awarding Bodies are part of the Quality Code. The Qualifications Frameworks describe the achievement represented by higher education qualifications. They apply to degrees, diplomas, certificates and other academic awards granted by a higher education provider with degree awarding powers.

The [QAA Subject Benchmark Statement: Computing \(2016\)](#) articulates the knowledge, skills and categories of achievement to be expected of successful honours graduates in the field. These have been used to craft module learning outcomes and content as well as learning, teaching and assessment strategies of all modules.

This award is located at Level 6 of the FHEQ.

#### 17. **Support for students**

##### **General approaches to student support**

The fundamental approach of Worcester Business School to student support is centred on the need to motivate and inspire our students. Given the nature of the subject material, the need for *active learning* is emphasised through the award.

Students are supported during in-class activities with verbal formative feedback on their progress during seminar activities. They are also supported on a one-to-one basis, as required, outside the classroom through individual tutorials. Tutors allocate timetabled office hours to support student learning.

##### **Student induction**

Worcester Business School runs a week of induction events at the start of the academic year. This varies in detail from year to year but includes the following elements: Introduction to the course, introduction to fellow students, introduction to UW support services, meetings with academic tutors, introduction to key ICT and library resources, introduction to study skills, introduction to group activities.

Support is available beyond Induction Week to ensure that students receive appropriate support at the point of need through the WBS Academic Support Unit Hub and Personal Academic Tutoring.

##### **Personal Academic Tutoring**

Each student has a nominated Personal Academic Tutor (PAT) to provide academic advice and guidance, personal development planning and pastoral support as appropriate throughout their programme of study. Key aspects of the role include:

- To support the academic development of their allocated tutees

- To act as the first point of call for any tutees experiencing issues or problems arising whilst at University
- To provide the official University reference for tutees
- To advise students on individual course options, module selection and academic planning
- To identify 'at-risk' students and implement intervention
- Improve graduate outcomes by focusing on students' ultimate career goal, providing information and guidance on graduate options (further study, employment and entrepreneurship)
- To lead to increased student engagement, achievement and attendance.

In addition, to the above, the following activities and documents have been put in place to provide development and support for undergraduate students at Worcester Business School:

- Handbooks are provided for the Course.
- Module outlines which include module code, module title, level, planned teaching activities, attendance requirements, assessment briefs, assessment criteria and reading lists.
- Learning and study guides, including bespoke guides for Work Placements and assessed projects.
- A Virtual Learning Environment to provide module-specific material, documents, activities and networking, as well as more general announcements and updates.
- Course Leaders to advise on curriculum and other course-related issues.
- A Placements Coordinator who runs a programme of workshops and other support arrangements and activities to prepare students for the placement year and other work experience opportunities. Placement students will be further supported by a dedicated tutor during their placement experience.
- Student course representatives on Course Management Committee to address course-wide issues.
- The University's Disability & Dyslexia Service provides advice and support for students who have mental health difficulties, dyslexia, sensory or physical impairments and other difficulties. There is a dedicated Assistant Disability Coordinator for students with sensory impairments. Advice is also available on access technology such as voice recognition and text-to-speech software.

<http://www.worcester.ac.uk/student-services/index.htm>

<https://www2.worc.ac.uk/disabilityanddyslexia/>

## 18. Admissions

### Admissions policy

The University aims to be accessible; it is committed to widening participation and encouraging diversity in the student population. Worcester Business School works closely with central student support services including the Admissions Office, the Disability & Dyslexia Service and the International Recruitment Team to support students from a variety of different backgrounds. We actively encourage and welcome people from the widest range of economic and cultural backgrounds and value the contribution of mature learners.

### Entry requirements

The normal minimum entry requirement for undergraduate degree courses is the possession of 4 GCSEs including English and Maths (Grade C/4 or above) and a minimum of 2 A Levels (or equivalent Level 3 qualifications).

The current UCAS Tariff requirements for entry to this course are published in the prospectus and on the UW website <https://www.worc.ac.uk/journey/a-z-of-courses.html>

See [Admissions Policy](#) for other acceptable qualifications.

Applicants with no formal qualifications may be considered for Mature Student Entry Routes.

The University welcomes applications from candidates holding qualifications outside the UCAS Tariff including those awarded by professional bodies and overseas qualifications, including the International and European Baccalaureate.

Students whose first language is not English will be expected to have reached a sufficient standard on admission to the programme (e.g. IELTS of 6.0 or higher or Pearson 59 or 51 or higher in each component). Please note that IELTS exams must be no more than two years old at the start of the course. Further details regarding minimum entry requirements can be found on the University [web site](#).

International students must hold a qualification equivalent to the UK standard entry requirements for undergraduate courses. International students can check their qualification with the International Recruitment Team at: [international@worc.ac.uk](mailto:international@worc.ac.uk)

International students may apply for this course through the University of Worcester International College (UWIC) programme. Students who successfully complete UWIC Stage 1 will progress to UWIC Stage 2 Level 4 Programme which is equivalent to the first year of this course. Students will be required to successfully complete all parts of UWIC Stage 2 in order to progress to Level 5.

### **Recognition of Prior Learning**

Details of acceptable level 3 qualifications, policy in relation to mature students or applicants with few or no formal qualifications can be found in the prospectus or on the University webpages. Information on eligibility for recognition of prior learning for the purposes of entry or advanced standing is also available from the University webpages or from the Registry Admissions Office (01905 855111).

Further information on Recognition of Prior Learning can be found at <http://www.worcester.ac.uk/registryservices/941.htm>

### **Admissions procedures**

Offers will be conditional against successful meeting of entry requirements. Evidence from personal statements and/or references included with the application form will be considered in order to ascertain a candidate's ability to demonstrate enthusiasm for the subject, commitment to study and the academic capability to succeed on the Course.

Please refer to the Admissions office or <https://www.worc.ac.uk/study/find-a-course/how-to-apply/home.aspx>

Full-time applicants apply through UCAS (see page 1, Section 8 for course codes). Part-time applicants apply directly to University of Worcester (UW).

## **19. Regulation of assessment**

### **The course operates under the University's Taught Courses Regulatory Framework**

#### **Requirements to pass modules**

- Modules are assessed using a variety of assessment activities which are detailed in the module specifications.
- The minimum pass mark is D- for each module.

- Students are required to submit all items of assessment in order to pass a module, and in some modules, a pass mark in each item of assessment may be required.
- Full details of the assessment requirements for a module, including the assessment criteria, are published in the module outline.

### Submission of assessment items

- Students who submit course work late but within 7 days (one week) of the due date will have work marked, but the grade will be capped at D- unless an application for mitigating circumstances is accepted.
- Students who submit work later than 7 days (one week) will not have work marked unless they have submitted a valid claim of mitigating circumstances.
- For full details of submission regulations please see the [Taught Courses Regulatory Framework](#).

### Retrieval of failure

- Students are entitled to resit failed assessment items for any module that is awarded a fail grade.
- Reassessment items that are passed are capped at D-.
- If a student is unsuccessful in the reassessment, they have the right to retake the module (or, in some circumstances, take an alternative module); the module grade for a re-taken module is capped at D-.
- A student will be notified of the reassessment opportunities in the results notification issued via the secure student portal (SOLE). It is the student's responsibility to be aware of and comply with any reassessments.

### Requirements for Progression

- A student will be permitted to progress from Level 4 to Level 5 if, by the time of the reassessment Board of Examiners, they have passed at least 90 credits at Level 4. Outstanding Level 4 credits must normally be studied in the following academic year.
- A student will be permitted to progress from Level 5 to Level 6 if, by the time of the reassessment Board of Examiners, they have passed at least 210 credits, including 90 credits at Level 5. Outstanding Level 5 credits must normally be studied in the following academic year.
- A student who, by the time of the reassessment Board of Examiners, has failed 90 credits or more during the academic year as a consequence of non-submission, will be required to withdraw from the University
- If a student has not passed 90 credits by the reassessment Board of Examiners, and is not withdrawn due to non-submission, they will be required to retake failed modules in the following academic year. Any passed modules will be carried forward.
- For students following the UWIC pathway see section 18 above.

### Requirements for Awards

Award	Requirement
Certificate of Higher Education Cert HE	In order to be eligible for the exit award of Certificate in Higher Education in the named subject/area of study, a student must have passed at least 120 credits in total including the mandatory modules for Level 4 of the award as specified on the award map.
Diploma of Higher Education DipHE	In order to be eligible for the exit award of Diploma in Higher Education in the named subject/area of study, a student must have passed at least 240 credits in total including the mandatory modules for Level 4 and Level 5 of the award as specified on the award map.
Degree (non-honours)	Passed a minimum of 300 credits with at least 90 credits at Level 5 or higher and a minimum of 60 credits

	at Level 6, including the mandatory modules for Level 5 and Level 6 of the award (not the Independent Study module) as specified on the award map.
Degree with honours	Passed a minimum of 360 credits with at least 90 credits at Level 5 or higher and a minimum of 120 credits at Level 6, as specified on the award map.
Top-up Degree (non-honours)	Passed a minimum of 60 credits at Level 6, as specified on the award map.
Top-up Degree with honours	Passed a minimum of 120 credits at Level 6, as specified on the award map.

### Classification

The honours classification will be determined by whichever of the following two methods results in the higher classification.

- Classification determined on the profile of the best grades from 60 credits attained at Level 5 and the best grades from 120 credits at Level 6. Level 5 and Level 6 grades count equally in the profile.
- Classification determined on the profile of the best grades from 120 credits attained at Level 6 only.

For further information on honours degree classification, see the [Taught Courses Regulatory Framework](#).

For Joint Honours courses: The Bachelor of Science (BSc) award will only be used for joint courses comprising two subjects for which the award of BSc was agreed, in all other cases the award will be Bachelor of Arts (BA).

## 20. Graduate destinations, employability and links with employers

### Graduate destinations

- For the 2016/17 leavers from a total of 70% BSc (Hons) Computing graduates employed after 6 months, 75% are in graduate employment.
- The degrees prepare students for a range of interesting and challenging careers in the public, private and voluntary sectors, both in the UK and overseas. Employment may initially be as a trainee in a large organisation or a junior role in a smaller organisation, before moving on to more senior positions. Alternatively, students may decide to establish their own business.
- Some organisations that Worcester Business School graduates have worked for include such prestigious firms as:
  - Amazon UK
  - Cisco Systems
  - DHL
  - Enterprise
  - HSBC
  - Mazda
  - Sainsburys
  - Vodaphone

### Student employability

- Depending upon the degree, full-time students may have the opportunity to take a 4-year sandwich degree with a UK or international placement year, normally in the third year of the programme. Students can apply for opportunities in the UK at a large number of well-known organisations across a wide range of industry sectors who offer placements annually, including IBM, Marks and Spencer, the NHS, J P Morgan, Kraft, Worcester Bosch, Waitrose, Xerox, PWC and many others.

- Short-term work placement and job opportunities are also advertised via Worcester Business School's intranet for existing students.
- Career guidance – A range of opportunities are provided to enhance students' employment. Students will benefit from the close links that have been developed with local and national employers. Further careers guidance is available through the University of Worcester Career Advisory Service and periodic Career Fairs are organised by Student Services.

Strategies used to embed employability into the curriculum and enhance graduate employability within a complex global world include:

- the option of a paid placement year
- the targeting of selected Employability Standards in every module (designed by Worcester Business School in conjunction with employers)
- access to a broad network of business managers and employers
- employment preparation workshops which include CV preparation, mock interviews/ assessment centres and meetings with employers
- opportunities to engage in work-based learning modules

### **Links with employers**

- Worcester Business School aims to promote closer links with employers through the work of its Business and Professional Development Team and is supported by its Employers' Advisory Group, which meets on a regular basis.
- The Business School works closely with a number of professional organisations including the Chartered Institute of Management, Institute of Commercial Management, Chartered Institute of Marketing, Chartered Institute of Personnel and Development, Chartered Institute of Public Relations, Institute of Financial Accountants, Chartered Institute of Payroll Professionals, and British Computer Society.
- The Business School has worked with a number of business clients in developing and delivering its programmes including the NHS, local government, police constabularies, the Ministry of Defence, Royal Air Force, the Prison Service, Royal Mail, financial services, housing associations and many other local organisations and businesses.
- The Business School has well-developed working relations with the local business community many of whom contribute to undergraduate programmes to give a real-world insight into the future world of work.
- These professional and business networks also involve external events, many of which are open to students, as well as employers.
- The School liaises with external agencies, such as the Institute of Directors, Federation of Small Businesses, Chamber of Commerce and Confederation of British Industry.
- Media Lab. Worcester Business School's 'Media Lab is a dedicated purposefully-equipped space to provide students with the experience of working on 'live' projects with clients from the local business community. Projects include: mobile applications, games, website and software development. The Lab is also working as a test bed for learning and teaching and sustainability methodologies.
- Computing Showcase – employers attend the 'Computing Project' Showcase event each spring where third-year students present their projects to industry experts, employers, tutors and other students.

**Please note:** This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning

and assessment methods of each module can be found in associated course documentation e.g. course handbooks, module outlines and module specifications.

## APPENDIX: AWARD MAP

Course Title: Computing					
Level 4					
Module Code	Module Title	Credits (Number)	Status (Mandatory (M) or Optional (O))		Exclusions
			Single Hons	Joint Hons	
COMP1421	Foundations of Computing	30	M	M	None
COMP1441	Web Technologies	30	M	O	COMP1341
COMP1447	Introduction to OO Programming	30	M	O	COMP1345 or COMP1812 or COMP1347
COMP1482	IT Systems Fundamentals	15	O	-	COMP1381 or COMP2371
COMP1442	Creative Computing	15	O	-	COMP1342 or BMGT2022
LANG xxxx	Optional modules offered by the Language Centre	15/30	O	-	N/A

### Single Honours Requirements at Level 4

Single Honours students must take 120 credits in total drawn from the table above to include all mandatory modules – COMP1421, COMP1441 and COMP1447 and optional modules – which can include up to 30 credits drawn from a range of Language Centre modules in: Academic English for native and non-native speakers of English; Modern Foreign Languages; and Teaching English as a Foreign Language (TEFL). Details of the available Language modules can be found on the Language Centre website: <http://www.worcester.ac.uk/your-home/language-centre-module-options.html>.

### Joint Honours Requirements at Level 4

Joint Honours students must take 60 credits from the table above to include COMP1421 and an optional module COMP1441 OR COMP1447.

**Level 5**

Module Code	Module Title	Credits (Number)	Status (Mandatory (M) or Optional (O))				Exclusions
			Single Hons	Maj	Joint Hons	Min	
COMP2411	Systems Analysis & Design	30	M	M	M	O	COMP2311
COMP2403	Robotics	15	O	O	O	O	None
COMP2421	Distributed Systems	30	O	O	-	O	None
COMP2431	OO Design and Development	30	O	O	O	O	COMP2331
COMP2441	Web Application Development	30	O	O	O	O	COMP2341
COMP2443	Advanced Creative Computing	15	O	O	O	O	COMP1342 or BMGT2022
COMP2445	Data Mining	30	O	O	-	O	None
COMP2451	Game Design and Engineering	30	O	O	-	-	COMP2351 COMP2431 co-req
COMP2461	Mobile Application Development	15	O	O	O	O	COMP2361 or COMP3361
COMP2462	Interaction Design	15	O	O	O	O	None
BMGT2200	Managing Successful Projects	15	O	O	-	-	BUSM2319
BMGT2300	Digital Content Systems and Ecommerce	15	O	O	-	-	COMP2381 or COMP3381
BMGT2301	Social Commerce	15	O	O	-	-	COMP2381 or COMP3381
BMGT2320	Cultivating the Entrepreneurial Mind-set	15	O	O	-	-	BUSM1320
BMGT2321	New Venture Formation	15	O	O	-	-	None
BMGT2400	Consultancy and Research Methods	30	O	O	-	-	None
LANG xxxx	Optional modules offered by the Language Centre	15/30	O	-	-	-	None

**Single Honours Requirements at Level 5**

Single Honours students must take 120 credits in total drawn from the table above to include mandatory module COMP2411 and one of COMP2421 OR COMP2431 OR COMP2441 and 60 credits of optional modules from the table above, at least 30 credits must be from Computing options and up to 30 credits can be drawn from a range of Language Centre modules in: Academic English for native and non-native speakers of English, Modern Foreign Languages and Teaching English as a Foreign Language (TEFL). Details of the available Language Centre modules can be found on the Language Centre website: <http://www.worcester.ac.uk/your-home/language-centre-module-options.html>

### Joint, Major and Minor Honours Requirements at Level 5

Students following Joint Honours pathways can adjust their studies at Level 5 to take more modules in one subject or can maintain an equally balanced programme of modules in each subject. The precise award title (Joint Hons or Major/Minor Hons) depends on the total number of credit achieved in each subject at Levels 5 and 6 – for further information see the table at the end of this document.

### Major Pathway Requirements at Level 5

Major Pathway students must take at least 60 and no more than 90 credits from the table above to include COMP2411 and a 30 credit optional module COMP2431 OR COMP2441.

### Joint Pathway Requirements at Level 5

Joint Pathway students must take at least 60 credits and no more than 75 credits from the table above to include COMP2411, and a choice from either COMP2431 or COMP2441, and optional modules if required from COMP2403, COMP 2443, COMP2461 or COMP2462.

### Minor Pathway Requirements at Level 5

Minor Pathway students must take at least 30 credits and no more than 60 credits from the table above.

### Optional Work Placement or Year Abroad

Students may take an optional work placement or third year abroad year between Levels 5 and 6.

Work Placement Option				
Module Code	Module Title	Credits (Number)	Status (Mandatory (M) or Optional (O))	Exclusions
BMGT3404	Work Placement	NA	O	WORC3000, BMGT3405, BUSM3000
BMGT3405	Overseas Work Placement	NA	O	WORC3000, BMGT3404, BUSM3000
WORC3000	Third Year Abroad	NA	O	BMGT3404, BMGT3405, BUSM3000

Please Note: Students on Tier 4 visas must ensure that they remain compliant with UKVI regulations on attendance and engagement if they take up an opportunity to study abroad. They should also be aware that taking up such an opportunity may compromise their immigration status in the UK so should take advice from the International Student Advisor before applying.

Level 6								
Module Code	Module Title	Credits (Number)	Status (Mandatory (M) or Optional (O))				Pre-requisites	Co-requisites/exclusions
			Single Hons	Maj	Joint Hons	Min		
COMP3401	Computing Project	30	M	M	O	-	None	COMP3003 or COMP3004 or COMP3005 or COMP3007 or COMP3008
COMP3402	Nature of Computing	30	M	O	-	O	None	None
COMP3404	Applied Software Engineering	30	O	O	O	O	COMP2431 or COMP2331	None
COMP3405	Drones: Technology, Legislation and Safety	15	O	O	O	O	None	COMP3305
COMP3406	IT Systems Consultancy	30	O	O	O	O	None	None
COMP3407	Machine Learning	15	O	O	O	O	None	None
COMP3409	Internet of Things	15	O	O	O	O	None	None
COMP3441	Advanced Web Application Development	30	O	O	O	O	None	COMP3341
COMP3451	Advanced Game Design and Engineering	30	O	O	-	-	COMP2451 and COMP2431	COMP3551 COMP3404 co-reqs
COMP3457	Managing Cyber Risks	15	O	O	O	O	None	COMP3357
COMP3471	Cyber Security	15	O	O	O	O	None	COMP3371
COMP3491	Practical Database Applications	15	O	O	O	O	None	COMP3391
BMGT3000	Digital and Social Media Marketing	30	O	O	-	-	None	None
BMGT3220	Coaching and Mentoring	15	O	O	-	-	None	None
BMGT3300	Digital Business	15	O	O	-	-	None	COMP2381 or COMP3381
BMGT3311	Business Intelligence and Analysis	15	O	O	-	-	None	None

### Single Honours Requirements at Level 6 including top-up

Single Honours students must take 120 credits from the table above to include all mandatory modules COMP3401 and COMP3402 and 60 credits of optional modules, at least 30 credits of these must be Computing (COMP) options.

### Joint, Major and Minor Honours Requirements at Level 6

Students following pathways in two subjects can adjust their studies at Level 6 to take more modules in one subject or can maintain an equally balanced programme of modules in each subject. The precise award title (Joint Hons or Major/Minor Hons) depends on the total number of credit achieved in each subject at Levels 5 and 6 – for further information see table at the end of this document.

### Major Pathway Requirements at Level 6

Major Pathway students must take either 75 or 90 credits from the table above to include COMP3401.

### Joint Pathway Requirements at Level 6

Joint pathway students must take 45, 60 or 75 credits (to make at least 105 credits over Levels 5 and 6 in the subject, and no more than 135 credits over Levels 5 and 6 in the subject), from the table above.

Joint pathway students who choose to take their Independent Study (or equivalent Project) in this subject must take COMP3401.

Joint pathway students who choose to place their Independent Study (or equivalent Project) in their other joint subject must take the relevant Independent Study module.

Joint pathway students must take one Independent Study (or equivalent Project), either in this subject, in their other joint subject, or take JOIN3001 or JOIN 3002 where an Independent Study covers both joint subjects.

### Minor Pathway Requirements at Level 6

Minor pathway students must take either 30 or 45 credits from the table above.

### Credit requirements for awards involving two subjects

In determining whether an award derived from two subjects is Joint Honours (subject 1 **and** subject 2) or Major/Minor Honours (subject 1 **with** subject 2) credits taken in each subject at Levels 5 and 6 will count as follows:

Subject 1	Subject 2	Award
120	120	Joint Hons
135	105	Joint Hons
150	90	Major/minor Hons
165	75	Major/minor Hons
180	60	Major/minor Hons