Programme Specification for HND Computing

This document applies to Academic Year 2018/19 onwards

1.	**Awarding institution/body**	University of Worcester
2.	**Teaching institution**	University of Worcester
3.	**Programme accredited by**	N/A
4.	**Final award**	HND
5.	**Programme title**	HND Computing
6.	**Pathways available**	N/A
7.	**Mode and/or site of delivery**	Standard taught programme, onsite at University of Worcester
8.	**Mode of attendance**	This programme is approved for full-time and part-time study
9.	**UCAS Code**	5216 (W80)
10.	**Subject Benchmark statement and/or professional body statement**	Computing Benchmark Statement 2007, QAA
11.	**Date of Programme Specification preparation/ revision**	April 2014; August and October 2014 – amendment to regulations. December 2016 – Update and amendment to include the Taught Courses Regulatory Framework. August 2017 – AQU amendments August 2018 – AQU amendments

12. Educational aims of the programme

This course is designed for students seeking a vocationally-oriented higher education qualification available after two years of full time study (four years part time), with the opportunity to top-up to an honours degree after a further one year full time (two years part time). It will therefore appeal to students who only want to commit to two years in full time (or 4 years part time) education in the first instance. It will also appeal to mature students re-entering higher education as well as to those currently working in the IT sector seeking to further develop their careers.

The vocational orientation of the programme is aimed to provide students with both a hands-on applied approach, as well as a contextualised approach to learning. The programme aims to develop an appreciation of Computing as an integral part of commercial and industrial activities and as a pervasive part of everyday life in this fast-changing field. It aims to meet Computing 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).

The programme seeks to motivate and guide students into their future professional lives by providing an educational experience grounded in both theory and practice to meet the needs of the workplace and the wider global community. The programme also encourages the development of lifelong learning skills and installs the values of global citizenship.

The programme uses a variety of methods to prepare students for various employment opportunities by also developing work-related skills such as computing competencies, project management, and team work.

Our aims are to:

1. Give students a comprehensive understanding of the core areas of computing technology and their inter-relationships.
2. Prepare, develop and enhance lifelong learning skills to support students in terms of employability, career aspirations and in making an effective contribution to a diverse and multi-cultured society.
3. Engage with a future-oriented, academically-coherent and appropriately-balanced programme which combines logic and intellectual integrity with a distinctive practical and vocational flavour.
4. Develop students who can systematically assess options for various computer-based problems and devise appropriate solutions in both individual and team environments.
5. Promote a better understanding of technical decisions involving commercial Computing and increase the awareness of various types of technologies to better enhance business decision making.
6. Cultivate an appreciation of professional, sustainable and ethical issues, together with a sensitivity to changes in computing and information technology, to enable students to be future generators of sustainable value for business and society at large, and to work for an inclusive and sustainable global economy.
7. To be informed by relevant and current research, scholarship and professional practice of the computing arena and how the theoretical aspects can be applied to real-world computing applications.

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

Our students are expected to develop a spectrum of skills and abilities, grounded in intellectual tasks. These can be categorized as (i) knowledge and understanding (ii) cognitive abilities and skills related to intellectual tasks, (iii) practical skills related to the discipline of Computing, (iv) transferable skills which may be learned within the context of Computing, but which may be deployed in other contexts. The QAA Computing Subject Benchmarks were used to craft the intended learning outcomes and examples.

A. Knowledge and understanding *On successful completion of the course, students will be able to:*	***Examples of learning, teaching and assessment methods used:***
1. Appreciate the concepts of computational thinking including its relevance to everyday life. 2. Demonstrate knowledge and comprehension of essential facts, concepts, principles and theories relating to computing and computer applications 3. Use knowledge and comprehension in the modelling and design of computer-based systems for the purposes of comprehension, communication, prediction and the understanding of trade-offs 4. Recognise and analyse criteria and specifications for computer-based systems appropriate to specific problems, and plan strategies for their solution. 5. Analyse the extent to which a computer-based system meets the criteria defined for its current use and future development	• The programme contains varied approaches to learning, teaching and assessment designed to encourage student to progress as individuals within their capabilities, and to achieve a qualification. • Summative assessment takes place by a variety of means including written assignments and reports to assess knowledge of topic. Examples include: oral presentations to peers (COMP1811, COMP2311) group activities to assess information dissemination skills (COMP2311) and research-driven tasks to allow students to demonstrate individual knowledge and insight with subsequent oral and written feedback given COMP2814). • Flexible lecture patterns apply made up of formal lectures, practical workshops (comprising group work sessions) and individual and group tutorials. Group and individual tasks involving library and internet-based information retrieval feature in various modules e.g. COMP1811 Computer Systems for Professionals and BUSM1814 Web and E-business.

6. Deploy appropriate theory, practices and tools for the specification, design, implementation and evaluation of computer-based systems. 7. Present rational and reasoned arguments that address a given information handling problem or opportunity 8. Recognise the professional, economic, social, environmental, moral and ethical issues involved in the sustainable exploitation of computer technology and be guided by the adoption of appropriate professional, ethical and legal practices	• Inter-active materials available on VLE. • Tutor support is deployed at all levels to assist students' progression towards achieving a broad but deep comprehension of the field of Computing, to motivate students and to provide different learning approaches.. • Use of electronic feedback and submission for easier student access.
B. Cognitive and intellectual skills *On successful completion of the course, students will be able to:* 1. Appreciate the role of evaluation and testing in ensuring that computer-based systems meet the criteria for their defined use and future developments 2. Demonstrate an understanding of methods, tools and approaches to specify, design, implement and evaluate computer systems 3. Reflect on and communicate Computing principles, orally, textually or using electronic media, including e-assessing the impact of new technologies 4. Recognise the professional, economic, social, environmental, moral and ethical issues involved in the sustainable deployment of computing 5. Solve problems including dealing with complex issues of systems development and design.	***Examples of learning, teaching and assessment methods used:*** • Student activities including individual and group exercises, the use of guided worksheets and direct input into sessions. These may be paper-based or computer-based. • Research-based workshop activities, following which students may be invited to contribute to a "plenary discussion" (COMP1811, COMP2311). • Students are encouraged to engage in peer-support, through both informal contacts (email and direct), but also through the use of discussion groups (supported by the VLE) • Students are encouraged to reflect on how social and technical changes can have ethical, sustainability and moral impact on themselves, society and business (COMP1811, COMP2311). • Case study analyses and group discussions will be used to give students the opportunity to engage in theoretical and practical problem solving involving complex issues based wherever possible on real-world examples (COMP2311).
C. Practical skills relevant to employment *On successful completion of the course, students will be able to:* 1. Specify, design and construct computer-based systems 2. Evaluate systems in terms of general quality attributes and possible trade-offs presented within the given problem 3. Recognise any risks or safety aspects that may be involved in the operation of computing equipment within a given context	***Examples of learning, teaching and assessment methods used:*** • Operation of computer applications is found in most modules. Specific examples include the use of CASE tools (COMP2311), project management tools (COMP2311) and multimedia tools (COMP1342) • Consideration of the risks and safety aspects within computing applications and approaches (COMP1811) • Demonstrating an understanding of how Computing and ICT can be used to solve sustainability issues in society and business

4. Deploy effectively the tools used for the construction and documentation of computer applications, with particular emphasis on understanding the whole process involved in the effective deployment of computers to solve practical problems 5. Operate computing equipment effectively, taking into account its logical and physical properties.	and how they can be implemented (COMP2311). • Acquisition of practical skills by developing an actual computing artefact (such as an e-commerce site in BUSM1814 or mobile app in COMP2361). • Evaluation of trade-offs in software and hardware design and implementation choices (COMP2311).
D. Transferable skills *On successful completion of the course, students will be able to:* 1. Demonstrate information-retrieval skills such as the use of browsers and search engines 2. Demonstrate numeracy and literacy in both understanding and presenting cases of both a qualitative and a quantitative nature 3. Effectively use general information technology (IT) facilities. 4. Work as a member of a team, recognising different roles within the team, and various ways of organising teams 5. Manage their own learning and development, including organization and time-management and lifelong learning 6. Appreciate the need for continuing professional development and lifelong learning.	***Examples of learning, teaching and assessment methods used:*** • The opportunity to learn a variety of methods for online retrieval and research from Internet sources, online libraries and other methods and to incorporate this directly into assignments (COMP1811). • Several modules involve formal group work including assessment (COMP2311, COMP1811) • Written assessments in a variety of formats (essay, report, learning journal) are used to develop numeracy and literacy skills. • Management of individual learning is achieved through structured tutor support in learning activities, through meeting assignment deadlines and through the planning and production of the Computing Project. • Personal development is introduced in the induction period, and developed through the mandatory modules COMP1811 and COMP2814 • The Induction process aims to introduce students into several aspects of learning and study: (i) Time Management related to assignment hand-in dates, (ii) The nature of learning, including concepts of multiple intelligences, levels of learning, experiential and collaborative learning approaches. • Explicit attention has been given to the plagiarism issue. One level 4 mandatory module (COMP1811) explicitly explores this issue. • Research skills are developed in the COMP1811, and are applied in the Applied Computing Project module COMP2814. • Project management and the ability to work at various team levels is an important part of running a development project, so this skill set has been incorporated into the programme (COMP2311).

The Computing HND gives students the opportunity to achieve and demonstrate the learning outcomes listed above by placing the modules within a practical context. The course will be

delivered by lecturers who bring practical experience of their subject into the classroom, and the design of modules emphasises the vocational approach to teaching and learning. One of the distinguishing features of this course is the additional academic support timetabled by way of tutorials across all of the modules.

A matrix mapping the Learning Outcomes Developed and Assessed by each Module is contained within Section 5 of the Course Handbook. The Handbook also contains an overview of learning and teaching methods, integration of practice and theory, integration of research into the modules, Project overview, and sustainability overview.

The Programme has a software mapping strategy to promote active learning as well as prepare students for employability in various computing fields. Further details of this strategy can be found in Section 5 of the Course Handbook. Specifically the strategy:

- Aligns software use with industry and employer requirements
- Identifies software to promote active and hands-on learning in seminar sessions. This software is installed at City Campus and available for student use 24x7
- When possible and subject to vendor agreements, utilises software that the students can freely access and download to their home computers

14. Assessment Strategy

The overall purpose of the assessment regime is to enable Computing students to:

- Demonstrate the intellectual rigour commensurate with a course of this nature and to develop the analytical skills expected of study at Levels 4 and 5 (Framework for Higher Education Qualifications).
- Gain experience in working individually and as part of a team
- Receive continuous, regular and appropriate feedback throughout the module/ course

The Assessment strategy has been designed to provide students with a variety of challenges appropriate to students on a programme which is both academic and vocational. The programme's assessment strategy has been considered within the context of UW's Learning, Teaching and Assessment Strategy and Assessment Policy

Assessments for the individual modules have been designed to enable students to demonstrate that they successfully met the learning outcomes. Each module outline contains an assessment strategy outlining the nature of the assessment and the respective weighting of each assessment item, as well as a detailed assessment brief and assessment criteria. Emphasis is placed on the development of analytical skills and the combination of theory and practice. The styles of each assessment takes into account a myriad of factors, including learning outcomes, content of the module and teaching and learning styles. For example, modules in programming lend themselves to more practical-based project assessments compared to a case-study assessment.

Because of the unique nature of Computing, emphasis is placed on practice, project-based learning and assessment. The use of formative assessment is especially important and practical projects are incorporated in the programme. Other areas of emphasis include:

1. Facilitating discussions and provide a forum for on line tutor-to-student and peer-to-peer support
2. Balanced scheduling of summative assessments during the year.
3. Formative assessment is an important element of the programme to help learners learn more effectively and to improve their performance and opportunities for formative assessment are included in each module, e.g. through on-line exercises, multiple choice questions.
4. Where possible, anonymous marking strategy is used. Anonymous marking is a system whereby the student's identity is not made known to the internal/external examiner at the time of marking. Its purpose is to protect students and markers against the possibility of bias, whether conscious or unconscious.

The programme has also been designed to align with the University's Curriculum Design Policy, i.e. "reflect the institution's values, goals and mission, that provide an excellent experience for students to learn, discover and fulfil their academic potential, and offer opportunities for students to be 'co-creators' in the learning experience, whilst also securing appropriate academic standards."

15. Programme structures and requirements

The programme is made up of 8 (30 credit) modules each taught across two semesters (4 per year full time, 2 per year part time). It has been designed to enable students to gain the foundation knowledge, and to introduce them to the practical skills and contexts they will meet in the world of Computing.

At year 1 (level 4), COMP1811, Computer Systems for the Professional is of particular relevance as the 'launch module' for the programme. Its rationale is to develop key knowledge and skills that will be built upon throughout the course. Many of these skills are crucial to graduate employability with a combination of both academic skills as well as gaining knowledge of various Computing topics. The remaining year 1 modules expose students to the Computing environment via principles of programming (COMP1812); multimedia (COMP1342) and Web/ecommerce concepts (BUSM1814). Modules are underpinned by realistic real-world business scenarios to begin the development of students' commercial awareness, and computing acumen before they progress to some of the more specialised modules in year 2.

Year 2 (level 5) further develops students' knowledge, understanding and practical skills in relation to the key design and development Computing activities of an organisation intended to support its ongoing growth and sustainability. Students explore the core of designing information systems required to support a profitable firm (COMP2311). They become acquainted with database tools to manage organisational data. A differentiating topic from many other HND Computing courses is the opportunity to gain skills in a new and growing technology – mobiles (COMP2361). All of this culminates in the Applied Computing Project (COMP2814) which draws together themes from the year 1 and 2 modules and helps students to further their personal and professional development and understand the multi-disciplinary nature of Computing.

AWARD MAP FOR A HIGHER NATIONAL DIPLOMA AWARD - Computing

LEVEL 4				
Module Code	**Module Title**	**Credits** (Number)	**Status** Mandatory (M)	**Prerequisites** (Code of Module required)
COMP1811	Computer Systems for the Professional	30	M	None
COMP1812	Programming and Scripting	30	M	None
COMP1342	Creative Computing	30	M	None
BUSM1814	Web and E-business	30	M	None

Note that additional academic support by way of tutorials will be given across all these modules.

Requirements at level 4
HND students must pass 120 credits in total at level 4 from the above modules.

LEVEL 5				
Module Code	**Module Title**	**Credits** (Number)	**Status**	**Prerequisites**

			Mandatory (M)	(Code of Module required)
COMP2311	Systems Analysis & Design	30	M	None
COMP2361	Mobile Applications Development	30	M	**COMP1341 or COMP1345 or COMP1812 or BUSM1814** (or COMP1241 or COMP1231)
COMP2812	Database Development and Scripting	30	M	None
COMP2814	Applied Computing Project	30	M	None

Note that additional academic support by way of tutorials will be given across all these modules.

Requirements at level 5
HND students must pass 120 credits in total at level 5 from the above modules.

16. QAA and Professional Academic Standards and Quality

The 2007 QAA Subject Benchmark statement for Computing articulates the knowledge, skills and categories of achievement to be expected of successful 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.

The award is located at level 5 of the Framework for Higher Education Qualifications. It has been designed with reference to: the UK Quality Code for Higher Education (Section A), the QAA FHEQ Descriptors at levels 4 and 5 and the NICATS General Level Descriptors such that successful students will be able to:

- Effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences, and deploy key techniques of the discipline effectively (see Intended Learning Outcomes A3, A7, B3)
- Analyse and evaluate information (see Intended Learning Outcomes A5, A6, B1, B2)
- Exercise personal judgement across a broad range of functions (see Intended Learning Outcomes for A8, C4, D3)
- Accept responsibility for determining and achieving personal and/ or group outcomes (see Intended Learning Outcomes D4)

As part of the University's approval process, it has been confirmed that the core content for the BTEC HND 'Computing and Systems Development' is covered in the University's HND 'Computing

The course was mapped to the Pearson BTEC HND Higher Nationals in Computing and Systems Development and accredited on the Qualification and Credit Framework (QCF) for first teaching from September 2010 (see Pearson/BTEC site).

A reference mapping of the industry educational domains against module content can be found in the Course Handbook.

17. Support for students

17.1 General Approaches to Support

Our fundamental approach to student support is centred on the need to motivate and inspire our students. We acknowledge that students learn in different ways and also have different expectations of their learning experience. Some respond best to a

'traditional' lecturing approach; others are motivated by learning and teaching contextualised in an industrial or an academic context.

17.2 Student Induction

Our induction process within Computing consists of activities designed to inform students what is expected of them in a Higher Education setting. Discussions of essay and report writing, working with others while avoiding plagiarism, and how to strive to achieve excellence are vital components of our induction process. Important here is Time Management, where we encourage students to organize their studies to meet the assessment deadlines. Students meet WBS tutors and representatives from Registry, Student Services and the Students' Union and are provided with information on course structure and content, resources and student support.

The following are examples of activities that have been put in place for new students entering WBS. These activities provide a range of opportunities where students develop relationships with their peers and tutors, learn about university services and engage in team building activities.

- Review of Computing pathways and overall Computing course structure
- Student Liaison and student representatives meetings
- Talks on employability, placements,, international study-abroad options
- Team building activities
- Visit to The Hive library
- Meeting with module leaders, tutors and Academic Advisors
- Hands-on sessions on UW computer systems, library, software
- Student Union activities
- Talks by Registry, librarians, student services

17.3 Personal Academic Tutoring

Each student has a nominated Personal Academic Tutor to provide academic advice and guidance, personal development planning and pastoral support as appropriate. The Personal Academic Tutor plays a significant role in enhancing the student's academic and personal experience of studying and key aspects of the role include:

- Assisting students to make the transition to studying in higher education
- Helping students to understand the requirements of their course
- Supporting students to take responsibility for their own learning
- Helping students to make the most of learning resources and other forms of support available
- Supporting students in academic, professional and career related planning and development
- Advising and guiding students on issues or problems that arise while they are at University
- Supporting students for whom there may be particular challenges
- Meeting students on a regularly scheduled basis. Individual meeting will be held throughout the academic year, and the Personal Academic Tutor will provide group meeting times during Worcester and/or Induction Weeks
- Tutors will advise students on individual course options, module selection and academic planning.

17.4 Future Weeks

The academic year has been scheduled to include three Future Weeks where the normal timetable has been altered to enable a range of alternative learning activities to be scheduled. These are an integral part of the learning experience. During these weeks, students will be engaged in planned, structure learning activities, which can be a

combination of 'taught' time, directed learning activities, time to develop employability skills or individual study.

The following are examples of activities that have been put in place for Future Weeks. For more detailed information, refer to Section 1.2 in the Course Handbook.

- Introduction to Work Placements
- Presentation skills
- Searching for vacancies
- CV clinic
- Graduate Internships
- Bright Futures Employers Panel & Networking
- Mock assessment centre
- Careers in Computing
- Preparing to leave options
- Self-employment – starting your own business
- Volunteering opportunities
- Computing Portfolios
- Investor pitches workshops

17.6 Support Processes and Mechanisms

The following have been put in place to provide support for undergraduate students within Computing at the Worcester Business School.

- Induction programme including inputs from Student Services
- Module outlines include module code, module title, level, planned teaching activities, attendance requirements, assessment brief, assessment criteria and reading lists
- Library, IT, Media and Print support is provided through an Information Desk and Study Guides
- Student representation on Course Management Committee to address course-wide
- Via Registry Services, students can obtain details of module availability, registration and results via the student online learning environment (SOLE page)
- A range of support services, including finance, firstpoint, and accommodation advice
- Student and academic support, representation and social networking via the Students' Union
- Equal Opportunity via the Disability and Dyslexia Service, which implements codes of practice in relation to disability, racial and other forms of discrimination and also provides practical support and guidance for students with learning difficulties
- Career Services offer one-to-one drop-in advice and information and publishes career events, activities and job opportunities. Worcester Business School also has its own intranet which advertises placement and career opportunities specifically for Computing and Business Management students
- A Virtual Learning Environment – VLE to provide module-specific material, documents, activities and networking, as well as a more general announcements and updates.
- (A full list of services can be found in the Course Handbook)

18. Admissions

The admissions policy for this programme seeks to be inclusive and to encourage participants from a wide and diverse range of backgrounds through equal opportunity. The course is intended for people who desire to pursue a career in Computing. In addition to students with A Levels in any subject, the course will attract students who have achieved an Extended BTEC National Diploma in Computing and IT at Level 3 or another

Computing-related qualification and for whom an HND qualification can be seen as an obvious progression route. The course will also attract students who have been employed without formal qualifications, who can use their work experience in the service of their achievements in the HND degree.

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 and Dyslexia Service and the International Centre 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 HND courses is the possession of 4 GCSEs (Grade C/4 or above) and 1 A Level (or equivalent Level 3 qualification).

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.

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
Full-time applicants apply through UCAS (*course code 5216*)
Part-time applicants apply directly to University of Worcester (UW)

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

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

- Module feedback
- Annual Course Evaluation Report completed by Course Leader
- Periodic Review including external scrutiny
- Peer teaching observation
- External Examiners' Reports
- Academic staff annual appraisal
- Staff Development Away Days and other events

Committees with responsibility for monitoring and evaluating quality and standards:

- School Quality Assurance Committee
- School Learning, Teaching & Student Experience Committee
- School Board
- School Post Results Moderation Group
- Computing Course Management Committee
- University Academic Standards & Quality Enhancement Committee
- Ethics Committee

Mechanisms for gaining student feedback on the quality of teaching and their learning experience:

- Course Management Committee
- Module feedback, including module feedback questionnaires and online questionnaires
- Computing Course Committee
- Meetings with module tutors and academic tutor
- National Students Survey
- Induction, exit and other ad hoc surveys
- Student Representatives

Feedback to students concerning decisions, changes and action points will be provided by direct feedback from the student representatives, the minutes of the Course Management Committee meeting and the Annual Evaluation Report.

20. 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 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.
- 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 5 days 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 5 days but within 14 days of the due date will not have work marked unless they have submitted a valid claim of mitigating circumstances.
- For full details of submission regulations see 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).
- 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

- Students at Level 4 will be permitted to progress to Level 5 when they have passed at least 90 credits at Level 4.
- A student who fails 90 credits or more due to non-submission will be required to withdraw from the University.

Requirements for Awards

Award	Requirement
HND Computing	120 credits at Level 4 and 120 credits at Level 5
HNC Computing	90 credits at Level 4 (COMP1811, COMP1812, BUSM1814) and 30 credits at Level 5 (COMP2311)
HNC Computing Studies	120 credits at Level 4 or higher

Exit Awards
Students who exit the programme having passed at least 120 credits including

- COMP1811
- COMP1812
- BUSM1814
- COMP2311

will be entitled to the exit award of HNC **Computing**

Students who exit the programme having passed a minimum of 120 credits from modules at Level 4 and/or Level 5 from the HNC/HND programmes, but have not passed one or more of the modules specified above, will be entitled to an exit award of HNC **Computing Studies**

These awards are not classified.

21. Indicators of quality and standards

- Annual External Examiners' reports have been extremely supportive and complimentary particularly with respect to the mix of assessments and responsive and proactive approach to continuously improving the curriculum for the BSc Computing. They have applauded our innovative approaches to course structure and module content.
- Many members of staff engaged in developing the programme are actively engaged in relevant research, consultancy and professional practice in the disciplines of Computing. Half of the full-time tutors have PhD degrees. .
- Positive feedback and satisfaction from students in module evaluations, with an average of 85% positive satisfaction rate for the BSc Computing.
- Many members of Worcester Business School staff engaged in developing the programme are actively engaged in relevant research, consultancy and professional practice in the disciplines of Computing.

22. Graduate destinations, employability and links with employers

Graduate destinations

Graduate employment for all BSc Computing students has remained positive compared to other sectors during the past several years, even with the worldwide economic downturn. Graduate employment for all BSc Computing students has remained positive compared to other sectors during the past several years, even with the worldwide economic downturn. Computing graduates traditionally also have a track record in new business start-up and freelance working.

Progression to Linked UW Honours Degree(s)/Top-Up Degree(s)

Students who successfully pass the HND programme are eligible to progress to the final year (top-up) year of BSc (Hons) Computing. Students can also elect to take a placement year prior to progressing to the top-up degree. Students will be required to register this interest at the beginning of the second year of the HND programme. This will provide access to extensive support and guidance, (e.g. workshops, cv preparation, mock interviews) in preparation for finding a placement. Students progressing to the BSc

(Hons) top-up degree will be familiar with many of the tutors teaching on the degree programme but will receive advice on module choices, Computing Project preparation and a bespoke induction/academic development programme on entry to the top-up degree.

Student employability

- Employability events and activities are available to students each academic year (Future Weeks – see Section 17)
- The subject area positively supports and engages in the Enterprise events and summer schools in which students have the opportunity to meet, work with, and be assessed by employers and entrepreneurs.
- Care has been taken to integrate the University's Academic Standards and Quality Enhancement Committee's ***"****Developing a Strategic Approach to Student Employability Support Statement", "*We will promote the use of the University's newly accredited work-based learning framework, and build upon its existing placement and work-based learning opportunities".
- All full-time HND students transitioning into the BSc Computing top-up degree have the opportunity to take a **placement year**. 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, Intel, The Audit Commission, Microsoft, Kraft, The House of Commons, NHS, Lidl, Waitrose, Atman Strategy, Resource Group, Graffica, Bosch, Shared Police and Higher Education Enterprise (SPHERE) with West Mercia Police, Hewlett Packard and many others.
- Short-term work placement and job opportunities are also advertised via the School's intranet for existing students. Students have worked on short-term web development projects for local firms such as Artwork Creative and Pepperneck.
- Career guidance is available through University of Worcester Career Advisory Service and periodic Career Fairs are organised by Student Services.

Links with employers

- Worcester Business School aims to promote closer links with employers through the work of its Business and Professional Development Team. The team is currently working with key decision makers in a variety of private, public and third sector organisations, and is supported by the School's Employers' Advisory Group, which meets on a regular basis.
- **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. Current clients include:
    - Purple Granite
    - Hereford and Worcester Fire & Rescue Service
    - Community First (charity)
    - University of Worcester
- 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.
- The School works closely with professional organisations including the British Computing Society.
- The School has worked with a number of business clients in developing and delivering its programmes. These include – The NHS (a range of Primary Care and Acute Trusts); Local Government (a range of County, District and Unitary Authorities); West Mercia, Warwickshire, Gloucestershire and Staffordshire Constabularies; Ministry of Defence and The Royal Air Force; Her Majesty's Prison Service; Royal Mail; Financial Services Organisations (e.g. Lloyds TSB, HBOS Plc,

Clerical Medical, NFU Mutual and Virgin Money); Housing Associations, Southco Allpay Limited, G4S Secure Solutions, Hereford & Worcester Fire and Rescue Service, Hitachi Capital, and Malvern Instruments.

- The School has well-developed working relations with the local business community many of whom contribute to Computing 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 has, for a number of years, been an important focus for projects linked with the West Mercia Constabulary through the Shared Police and Higher Education Research and Enterprise (SPHERE) partnership, which enables the force to utilise academic expertise to enhance its policing activities e.g. through undergraduate students' final year projects.

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 the module outlines and the course handbook.