

PROGRAMME SPECIFICATION

Bachelor of Science with Honours (SW) in Computer Studies

Awarding institution	Liverpool John Moores University
Teaching institution	LJMU
UCAS Code	G401
JACS Code	I100
Programme Duration	Full-Time: 3 Years, Sandwich Thick: 4 Years
Language of Programme	All LJMU programmes are delivered and assessed in English
Subject benchmark statement	Computing (2007)
Programme accredited by	BCS, The Chartered Institute for IT
Description of accreditation	Initial CITP. *Confirmation of full accreditation will be sought in 2019.
Validated target and alternative exit awards	<p>Bachelor of Science with Honours in Computer Studies</p> <p>Bachelor of Science with Honours (SW) in Computer Studies</p> <p>Diploma of Higher Education in Computer Studies</p> <p>Diploma in Higher Education (SW) in Computer Studies</p> <p>Certificate of Higher Education in Computer Studies</p>
Programme Leader	Denis Reilly

Educational aims of the programme

The programme aims to produce graduates who are able to play a significant role in the provision of information in a business environment by the development of effective and reliable computer-based systems. The specific aims of the course are as follows:

- To understand the underlying concepts, formal foundations and theory of computer-based information systems.
- To develop the knowledge, skills and abilities necessary for the investigation, analysis, design and development of large scale software systems.
- To provide an educational underpinning that both addresses leading edge developments in the industry and provides for future professional development, equipping students with the appropriate knowledge and skills for a wide variety of employment and/or further study.
- To encourage students to engage with the development of employability skills by completing a self-awareness statement.
- To encourage students to become advanced autonomous learners.
- To further develop students' originality in applying analytical, creative, problem solving and research skills.
- To provide advanced, conceptual understanding, underpinning career development, innovation and further study.
- For students undertaking a placement year the aim is to provide students with an extended period of work experience at an approved partner that will complement their programme of study at LJMU. This will give the students the opportunity to develop professional skills relevant to their programme of study, as well as attitude and behaviours necessary for employment in a diverse and changing environment

Alternative Exit/ Interim Award Learning Outcomes - Certificate of Higher Education

A student who is eligible for this award will be able to:

Develop computer programs using elementary programming constructs.

Apply a variety of tools and techniques for website design including human computer interaction (HCI) principles.

Develop skills in the planning, design and management of information systems.

Discuss a range of practical aspects of computing and apply the associated tools and techniques.

Discuss computer architecture at the hardware and software levels and discuss basic networking concepts.

Understand of the basics of data modelling and abstraction.

Understand the different approaches required to solve computer based problems.

Understand ethical frameworks and their application within the computing industry.

Communicate their ideas and take personal responsibility for their learning.

Alternative Exit/ Interim Award Learning Outcomes - Diploma of Higher Education

A student who is eligible for this award will be able to:

Critically analyse the requirements of a business system using structured techniques.

Critically evaluate and apply ethical theories to IT activities.

Understand and explain the fundamentals of object oriented design and programming and be able to develop object oriented applications.

Understand advanced web technologies and apply them to the design of advanced web applications.

Develop a logical schema and create and manipulate data using a database management system.

Understand and apply basic research skills in order to critique and review existing research and plan new research.

Understand and apply project management techniques and tools.

Identify and demonstrate their employability skills.

A student who successfully completes a placement year will be eligible for the Sandwich award and will, in addition to the above, be able to demonstrate the professional and personal skills necessary for effective employment within a professional environment.

Target award Learning Outcomes - Bachelor of Science with Honours (SW)

A student successfully completing the programme of study will have acquired the following subject knowledge and understanding as well as skills and other attributes.

A student who is eligible for this award will be able to:

1. Be critically aware of current and developing principles and practices of selected areas of computer systems technologies.
2. Have widened and deepened conceptual and practical knowledge and skills in selected areas of computer systems, in a wide range of domains.
3. Have been exposed to and applied a range of tools and techniques used in the development of complex computer systems.
4. Have critically analysed a range of computer systems and application domains.
5. Have a clear understanding of how to effectively and creatively manage computer systems.
6. Use knowledge with originality and be innovative in solving computer systems problems.
7. Demonstrate systematic and comprehensive knowledge and understanding of computer systems concepts, principles and theories.
8. Use such knowledge with originality in system modelling, requirements analysis and design of computer systems and applications in selected areas from a wide range of domains.
9. Perform critical evaluation and testing for computer systems in selected areas from a wide range of domains.
10. Deploy appropriate methods and tools creatively for the development of a complex computer system.
11. Develop and evaluate computer systems in selected areas from a wide range of domains.
12. Manage computer systems projects.

13. Use a wide range of computing facilities effectively.
14. Work individually and/or as a team member.
15. Use information technology, e.g. Web and Internet, for effective information retrieval.
16. Apply numerical skills to cases involving a quantitative dimension.
17. Communicate effectively by written or verbal means.
18. Plan and manage learning and development.

Alternative target awards

A student who is eligible for the following awards will be able to:

Bachelor of Science with Honours in Computer Studies -

A student successfully completing this award will have acquired the subject knowledge and understanding as well as skills and other attributes as detailed above but will not have successfully completed a placement year.

Teaching, Learning and Assessment

The methods used to enable outcomes to be achieved and demonstrated are as follows:

Core knowledge and understanding is acquired via lectures, tutorials, practical work, workshops and guided independent study. Independent study is used where appropriate resource material is available and increases as the programme progresses. Specifically, acquisition of 1 is via a combination of lectures, projects, seminars, and guided independent study. Acquisition of 2, 3, 4, 5 and 6 is via a mixture of lectures, tutorials, laboratory work, coursework, and projects. Students are given feedback on all work produced.

Assessment methods are specified in each module specification. All learning outcomes in a module are assessed and the type of assessment specified for each outcome. Each module is assessed by examination and/or course work. The nature of the course work varies for each module.

Cognitive skills are developed throughout the programme via tutorial, group discussion, teamwork, coursework, projects and presentations. Specifically, skill 1 is developed through tutorial group discussion, teamwork, coursework, projects, and presentations. Skills 2, 3 and 4 are developed through laboratory work, coursework, and projects.

Assessment of cognitive skills is through written examinations, laboratory work, coursework reports, project work, reports and presentations. Specifically, written examinations (1, 2), laboratory work (2-4), coursework reports (1-4), and/or project work, reports and presentations (1-4).

Practical skills are developed throughout the programme. Coursework and projects are designed to provide practical opportunities for students to work independently or in groups. Specifically, skills 1, 2 and 3 are developed through laboratory work, coursework, and project work. Skill 4 is developed through individual and group coursework, laboratory work, and project work.

Assessment of practical skills is normally by coursework and projects.

The placement year is assessed, by portfolio, on a pass / fail basis.

Key skills are developed throughout the programme in a variety of forms. Specifically through a combination of research related coursework, guided independent study and projects, examinations, group work and presentations. Skill 1 is developed through a combination of research-related coursework, guided independent study, and projects. Skill 2 is developed through study of technical methods, examinations, coursework, and projects. Skill 3 is developed through report writing for coursework and projects, written examinations, teamwork, presentations, and group discussion. Skill 4 is developed via the management of learning tasks and deadlines for coursework and projects.

Key skills are assessed as part of coursework (1-4), projects (1-4), written examinations (2,3) and presentations (3).

Programme structure - programme rules and modules

The placement year, module 5101COMSCI, will follow Level 5 and students will be enrolled on a 480 credit honours sandwich programme. The Level 5 mean for the final award mark will be calculated based upon the 240 credits at Level 5. Students successfully completing the assessment of the placement year are eligible for a Sandwich award.

Students not undertaking a placement year are registered on the non-sandwich version of the programme and will have the opportunity of an additional study year abroad following Level 5. Students will be enrolled on a 480 credit honours with study abroad programme. Of those 480 credits, 120 will be taken via a Level 5 study abroad module 5111COMSCI. The modules to be studied in the host institution must be agreed in advance. The Level 5

mean for the final award mark will be calculated based upon the 240 credits at Level 5.

Level 6	Potential Awards on completion	Bachelor of Science with Honours (SW)
Core	Option	Award Requirements
6100COMP PROJECT (40 credits) 6109COMP BUSINESS SYSTEMS ANALYSIS (20 credits) 6110COMP USER EXPERIENCE DESIGN (20 credits) 6111COMP ADVANCED TOPICS IN INFORMATION SYSTEMS (20 credits) 6112COMP WEBSITE AND E-COMMERCE MANAGEMENT (20 credits)		120 core credits at level 6 0 option credits at level 6
Level 5	Potential Awards on completion	
Core	Option	Award Requirements
5100COMP RESEARCH SKILLS (10 credits) 5101COMP PROFESSIONAL ISSUES (10 credits) 5102COMP DATABASE SYSTEMS (20 credits) 5104COMP OBJECT ORIENTED SYSTEMS DEVELOPMENT (20 credits) 5112COMP PROJECT MANAGEMENT (20 credits) 5113COMP INFORMATION SYSTEMS ANALYSIS AND DESIGN (20 credits) 5114COMP ADVANCED WEB DEVELOPMENT (20 credits)		120 core credits at level 5 0 option credits at level 5
Level 4	Potential Awards on completion	
Core	Option	Award Requirements
4100COMP INTRODUCTION TO PROGRAMMING (20 credits) 4101COMP COMPUTER SYSTEMS (20 credits) 4102COMP INTERNET AND WEB TECHNOLOGIES (20 credits) 4103COMP PERSONAL AND PROFESSIONAL DEVELOPMENT (10 credits) 4104COMP DATA MODELLING (10 credits) 4110COMP FUNDAMENTALS OF INFORMATION SYSTEMS (20 credits) 4111COMP PROBLEM SOLVING FOR INFORMATION SYSTEMS (20 credits)		120 core credits at level 4 0 option credits at level 4

Information about assessment regulations

All programmes leading to LJMU awards operate within the University's Academic Framework.
<https://www.ljmu.ac.uk/about-us/public-information/academic-quality-and-regulations/academic-framework>

Opportunities for work-related learning (location and nature of activities)

Level 4: 4103COMP Personal and Professional Development - this module provides students with an opportunity to consider their future role as a computing professional and develop a plan to enable them to progress in their chosen career.

Level 5: 5101COMP Professional Issues – this module provides further insight into developing the role of the student becoming a computing professional. Students will be encouraged to become student members of appropriate professional bodies for the computing industry (e.g. ACM, IEEE or BCS) as part of their development.

5101COMSCI Sandwich Year Computer Studies - The aim is to provide students with an extended period of work experience at an approved partner that will complement their programme of study at LJMU. This will give students the opportunity to develop professional skills relevant to their programme of study as well as the attitude and behaviours necessary for employment in a diverse and changing environment.

Criteria for admission

A/AS Level

Applicants should have or expect to obtain a total of 112 UCAS points with a maximum of 20 points from AS level qualifications.

BTEC National Diploma

BTEC Extended Diploma

To the value of 112 UCAS points.

BTEC Diploma / 90 Credit Diploma / Subsidiary Diploma /Certificate

To the value of 112 UCAS points when combined with other qualifications.

Irish Leaving Certificate

Applicants should have or expect to obtain a total of 112 UCAS points overall.

Scottish Higher

Applicants should have or expect to obtain a total of 112 UCAS points overall.

International Baccalaureate

Applicants should have or expect to obtain a total of 112 UCAS points overall.

Other

Qualifications deemed equivalent to the above upon completion of appropriate assessment will be considered acceptable.

Applicants should have five GCSE (or equivalent) passes of at least grade C including Mathematics and English (or IELTS 6.0).

BSc Computer Studies to MCOMP Computer Studies transfer is allowed with the permission of the Programme Leader and the maintenance of good academic performance, normally with averages above 60% at levels 4 and 5. Such requests for transfer must be made before the end of level 5 of the programme.

Mature entry

Mature applicants will be considered on a case-by-case basis. The admissions team will be particularly concerned with the length of time since any relevant academic study and relevant background from work experience or 'Access' courses.

Overseas qualifications

Applicants offering other awards will be considered on an individual basis in line with the agreed entry criteria. All applicants should have achieved IELTS 6 or equivalent.

External Quality Benchmarks

All programmes leading to LJMU awards have been designed and approved in accordance with the UK Quality Code for Higher Education, including the Framework for Higher Education Qualifications in the UK (FHEQ) and subject benchmark statements where applicable.

The University is subject to periodic review of its quality and standards by the Quality Assurance Agency (QAA) Published review reports are available on the QAA website at www.qaa.ac.uk

Programmes which are professionally accredited are reviewed by professional, statutory and regulatory bodies (PSRBs) and such programmes must meet the competencies/standards of those PSRBs.

Support for students and their learning

The University aims to provide students with access to appropriate and timely information, support and guidance to ensure that they are able to benefit fully from their time at LJMU. All students are assigned a Personal Tutor to provide academic support and when necessary signpost students to the appropriate University support services.

Students are able to access a range of professional services including:

- Advice on practical aspects of study and how to use these opportunities to support and enhance their personal and academic development. This includes support for placements and careers guidance.
- Student Advice and Wellbeing Services provide students with advice, support and information, particularly in the areas of: student funding and financial matters, disability, advice and support to international students, study support, accommodation, health, wellbeing and counselling.
- Students studying for an LJMU award at a partner organisation will have access to local support services

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

Student Feedback and Evaluation

The University uses the results of student feedback from internal and external student surveys (such as module evaluations, the NSS and PTES), module evaluation questionnaires and meetings with student representatives to improve the quality of programmes.

Staff development

The quality of teaching is assured through staff review and staff development in learning, teaching and assessment.

Internal Review

All programmes are reviewed annually and periodically, informed by a range of data and feedback, to ensure quality and standards of programmes and to make improvements to programmes.

External Examining

External examiners are appointed to programmes to assess whether:

- the University is maintaining the threshold academic standards set for awards in accordance with the FHEQ and applicable subject benchmark statements
- the assessment process measures student achievement rigorously and fairly against the intended outcomes of the programme(s) and is conducted in line with University policies and regulations
- the academic standards are comparable with those in other UK higher education institutions of which external examiners have experience
- the achievement of students are comparable with those in other UK higher education institutions of which the external examiners have experience

and to provide informative comment and recommendations on:

- good practice and innovation relating to learning, teaching and assessment observed by external examiners
- opportunities to enhance the quality of the learning opportunities provided to 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 he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content, teaching, learning and assessment methods of each module can be found in module and programme guides.