

# BSc (Hons) Computer Science - top-up

## COM054-F-RGL-4X-01 Full-time

**Awarding Institution** The University of Bolton  
**Teaching Institution** Regent College London  
**HECOS Code** 100366  
**Language Of Study** English  
**Notes:**

### Professional Accreditation

None Associated with this programme

### Programme Awards

Title	Type	Level	Description
Honours Degree (BSc (Hons))	Final Award	Level 6	Computer Science

### Benchmark Statements

The following benchmark statements apply to this programme:

- QAA Subject Benchmark Statement Computing 2022

### Internal and External Reference Points

1. Office for Students Sector Recognised Standards
2. UK Quality Code for Higher Education
3. The University of Bolton awards framework

### Other Points of Reference

- BCS Guidelines on Course Accreditation to CIP standards 2022

### General Entry Requirements

You are normally expected to have successfully completed a relevant qualification at Level HE5, such as a Foundation Degree or HND, or a professional qualification at an equivalent level. If English is not your first language you will need to complete a Secure English Language Test at IELTS 6.0 or equivalent. You may be required to attend an interview and/or provide a portfolio of work.

### Additional Criteria

### Additional Admission Matters

There are no additional Admission Matters associated with this Programme.

### Aims of the Programme

The principal aims of the programme are to:

- Develop an in-depth understanding of the theory, design and implementation of algorithms for manipulating data and information
- provide students with a broad education in Computer Science with a focus on problem solving, developing solutions using software and managing the process of innovation.
- apply appropriate theory, tools and methodologies to develop effective solutions
- equip students to adapt and learn new skills as the computer industry evolves throughout their careers
- prepare students for success in employment or postgraduate study

- ensure students have access and exposure to the latest methodologies and development techniques.
- develop essential workplace skills such as report writing, presentations and interpersonal skills needed for the modern workplace
- equip students with the knowledge necessary to understand the ethical and environmental issues they will encounter in industry in general

## Distinctive Features of the Programme

- The programme has been designed collaboratively working with industrial partners to ensure that students study a comprehensive program of relevant industrial topics
- A flexible programme of study with the ability to specialise in specific career-oriented pathways in the second half of the programme.
- The success of our graduates is directly related to the practical aspects covered in the course laboratory work.
- This is a Top-Up programme designed to allow you to progress from an appropriate prior qualification to an honours degree level. An induction programme will facilitate effective transition to honours degree study.

## Learning Outcomes

### Knowledge & Understanding

On completion of the programme successful students will be able to demonstrate systematic knowledge and understanding of:

- Business, professional and ethical application of computing in industry
- Gathering, processing and securely storing information
- Developing software solutions to meet business requirements
- Building security into all aspects of computer-based solutions
- Research strategies and approaches in order to solve problems and generate ideas
- Essential facts, concepts, principles and theories relating to computer science and computer applications.

### Cognitive, Intellectual or Thinking Skills

On completion of the programme successful students will be able to demonstrate the ability to:

- Identify and solve problems using a systematic approach to reach a solution
- Use knowledge in modelling and design of computers and networks to meet specific requirements
- Critically evaluate whether solutions meet specified requirements
- Use appropriate theory, practices and tools to develop computer and network based systems
- Integrate a variety of problem solving approaches and critically apply them to appropriate problems

### Practical, Professional or Subject-specific Skills

On completion of the programme successful students will be able to demonstrate the ability to:

- Evaluate the risks and vulnerabilities of computer systems
- Specify, design, construct, test and document reliable, secure and usable computer-based systems
- Evaluate systems in terms of quality attributes and possible trade-offs presented within the given problem
- Plan and manage projects to deliver computing systems within constraints such as requirements, timescale and budget
- Critically evaluate and analyse complex problems, including those with incomplete information, and devise appropriate solutions, within the design constraints
- Recognise and respond to any risks and safety aspects that may be involved in the deployment of computing systems within a given context.

### Transferable, Key or Personal Skills

On completion of the programme successful students will be able to demonstrate the ability to:

- work unsupervised, plan effectively and meet deadlines, and respond readily to changing situations and priorities
- undertake effective team working and project management and recognise and make best use of the skills and knowledge of individuals to collaborate
- undertake lifelong personal development: The ability to develop learning skills and recognise their application in employment and industry
- Clearly communicate complex ideas either verbally and/or in writing, and construct coherent arguments using language appropriate to your programme of study.

## Programme Structure

The BSc (Hons) Computer Science Top-Up programme is a 1 year full-time or 2 years part-time programme. Optional modules allow students to choose modules relevant to their intended career. Overall, the number and level of credits for this qualification requires successful completion of 120 credits at HE6.

## Validated Modules

Title	Module Code	COE <sup>1</sup>
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Research and Professional Issues	COM6300	C
Undergraduate Project	COM6301	C
Applied Machine Learning	SWE6302	O
Software Quality Management	SWE6303	O
Emerging Technologies	SWE6304	O
Emerging Technologies	SWE6304	O
Natural Language Processing	AIN6301	O
Operations Management	SEC6305	O
Information Security Management	SEC6302	O

<sup>1</sup>Core, Optional, Elective

## Learning & Teaching Strategies

Learning and teaching methods apply a blended style. This may include lectures, seminars, tutorials and critiques, self-directed learning, e-learning and laboratory/workshop sessions, as well as online sessions and support. Practical skills are acquired through technical introduction and support, workshop sessions, demonstrations and activity-based assignments. Active learning is promoted with a strong practical theme, throughout. This programme adopts a blended style of learning and teaching including online delivery and engagement where appropriate.

## Learning Activities (KIS entry)

Course Year	Level 3	HE4	HE5	HE6	HE7
Scheduled learning and teaching activities	n/a	n/a	n/a	23%	n/a
Guided independent study	n/a	n/a	n/a	77%	n/a
Placement/study abroad	n/a	n/a	n/a	n/a	n/a

## Assessment Strategy

Summative assessment is carried out at key points during teaching. Written feedback is provided following summative assessment. Assessment tasks are linked to the objectives of each module and are normally completed by the end of each module. Types of assessment evidence can include: assignments, projects, in-class tests, portfolios, examinations and presentations. Formative Assessment, which does not contribute to the final mark, is given to help the student improve their work in future and may be given to the student verbally/written/online. Summative assessment, which does contribute towards the final result, is normally given in writing to the student, with the opportunity for the student to receive more detailed verbal explanation. Note that optional modules in the final year mean that the assessment types may vary. For more detail see the individual module specifications.

## Assessment Methods (KIS entry)

Course Year	Level 3	HE4	HE5	HE6	HE7
Written exams	n/a	n/a	n/a	n/a	n/a
Coursework	n/a	n/a	n/a	90%	n/a
Practical Exams	n/a	n/a	n/a	10%	n/a

## Assessment regulations

Assessment Regulations for Undergraduate Programmes apply to this programme.

## Grade Bands & Classifications

Undergraduate Honours Degree

Regulations can be found at: <http://www.bolton.ac.uk/studentinformation-policyzone/Home.aspx>

## Role of External Examiners

External examiners are appointed for all programmes of study. They oversee the assessment process and their duties include: approving assessment tasks, reviewing assessment marks, attending assessment boards and reporting to the University on the assessment process.

## Support for Student Learning

- The programme is managed by a Programme Leader
- Each student has a Personal Tutor who is responsible for support and guidance
- Feedback is available on formative and summative assessments
- The opportunity to develop skills for employment
- The online Student Information – Policy Zone provides all regulatory and policy information in one place
- A subject specialist link tutor supports the programme
- Induction/Welcome Week introduces the student to the University, partner and their programme
- UoB online library services are a very good source of advice and support with excellent study skills materials available
- Partner centre has study resources
- Programme Handbooks and Modules guides provide information about the programme and university/partner regulations
- Academic Partnership Manager supports the partner centre
- The partner centre provides administrative support, information and advice
- Student representative training is available online from the Student Union

## **Methods of Evaluating & Enhancing the Quality of Learning Opportunities**

- Student Staff Liaison Committees
- Module evaluations by students
- Programme and University Student Surveys
- Annual quality monitoring and action planning through Programme Plans including data analysis, Subject Quality Enhancement Plans, School Quality Enhancement Plans, University Quality Enhancement Plan
- Peer review/observation of teaching
- Professional development programme for staff
- External Examiner reports

## **Sources of Information**

- Student Portal <http://www.bolton.ac.uk/Students/Home.aspx>
- Students Union <https://www.boltonsu.com/>
- External Examiner Report <https://www.bolton.ac.uk/Quality/EEE/ExternalExaminersReports/>
- Careers <http://www.bolton.ac.uk/careers>
- Student Information - Policy Zone <http://www.bolton.ac.uk/studentinformation-policyzone/Home.aspx>
- Regent College, London <https://www.rcl.ac.uk>