

## COURSE SPECIFICATION

Course Aim and Title	BSc (Hons) Computer Science
Intermediate Awards Available	Ordinary degree Computer Science, DipHE Computer Science, CertHE Computing
Teaching Institution(s)	UEL on campus
Alternative Teaching Institutions (for local arrangements see final section of this specification)	None
UEL Academic School	School of Architecture, Computing and Engineering (ACE)
UCAS Code	1K45
Professional Body Accreditation	BCS (full CITP)
Relevant QAA Benchmark Statements	<i>Computing</i>
Additional Versions of this Course	BSc (Hons) Computer Science with Foundation Year BSc (Hons) Computer Science with Placement Year
Date Specification Last Updated	November 2021

### Course Aims and Learning Outcomes

This course is designed to give you the opportunity to:

- Gain an understanding of the underpinning theories of fundamental principles and technologies within the area of computer science
- Gain technical expertise in the field of computer science, which will enable you to excel in this fast-developing area.
- Gain an understanding of the interplay between computer science theory and practice
- Gain appropriate software development and programming skills.
- Be aware of the management, economic, legal, social, professional and ethical issues relating to computer science.
- Learn and work both independently and within groups.
- Develop the necessary study skills and knowledge to pursue further study.
- Develop the professional skills necessary for a career in the IT industry

What you will learn:

#### Knowledge

- Underlying theories relevant to core Computer Science areas.
- Principles of computer programming and software development
- A variety of specialised topics such as networks, computer

programming, mobile applications, and intelligent systems within the area of Computer Science.

- An understanding of the professional and ethical issues relevant to the field of the Computer Science.

#### Thinking skills

- Formulating approaches for problem solving.
- Evaluation and critical analysis using a range of techniques.
- Self-appraisal and review of personal practice.
- Design and implement solutions for practical problems.

#### Subject-Based Practical skills

- Application of theories to the design of computer based systems.
- Use of range of specialised computer technology, such as programming languages, operating systems, networks, databases, software design and analysis tools.
- Preparation of essays, reports and presentations.
- Production of major self-directed project.
- Implementation of a system based on a set of specifications.

#### Skills for life and work (general skills)

- Communication Skills, such as report writing and presentations
- Time management
- Learning and working both independently and in groups

## Learning and Teaching

#### Knowledge is developed through

- Online discussions and activities
- Participation in lectures, tutorials and workshops with feedback
- Directed, guided and general reading
- Primary and secondary research, e.g. using the Internet or Learning Resources Centre

#### Thinking skills are developed through

- Reflective activities with feedback
- Online discussions and activities
- Successful completion of set assessment tasks
- Self-appraisal and self-evaluation
- Critical evaluation of concepts, assumptions, arguments and data

#### Practical skills are developed through

- Use of general IT applications such as word processors and spreadsheets
- Use of specialised IT applications such as software development tools and environments and CASE tools
- Research skills-based activities with feedback

Skills for life and work (general skills) are developed through

- Planning activities with feedback
- Project work
- Working in groups to complete work set, such as presentations
- Working during sandwich year as placement student

Managing time to complete assessments by deadlines

## Assessment

Knowledge is assessed by

- examinations, both unseen and based on previously supplied case studies
- extended essays and reports
- multiple choice tests

Thinking skills are assessed by

- all assessment tasks set, particularly those requiring critical evaluation
- self-appraisal of performance
- use of appropriate problem solving skills

Practical skills are assessed by

- assessment tasks requiring use of general and specialised IT applications
- use of equipment in practicals and presentations

Skills for life and work (general skills) are assessed by

- evidence of group and team working
- completion of placement year
- ability to work to time constraints

Students with disabilities and/or particular learning needs should discuss assessments with the Course Leader to ensure they are able to fully engage with all assessment within the course.

## Work or Study Placements

On our sandwich courses, students have the option to undertake a yearlong industrial placement during their third year. This placement is normally paid, but note that securing a placement is a competitive process and cannot be guaranteed. The university has long standing links with a large number of well-known employers who can provide UEL students with worthwhile work experience. Many students are offered permanent employment by their placement organisation when they graduate. In addition to enhancing employment prospects, the placement provides a valuable learning experience, the results of which feed into our students' final year of study.

It is ultimately your responsibility to secure a placement. If you are unable to secure a placement, you will be transferred back to the course without the placement component.

In addition to the optional, yearlong placement, you will complete a work-based learning module in the second term of your second year of study. During this module, you will undertake 70 hours of work-based learning which will provide you with opportunities to apply many of the skills and the knowledge acquired during the first half of your degree course.

Students also have the opportunity to apply for study abroad. Successful applicants of the scheme will be able to study a term at level 5 in China.

## Course Structure

All courses are credit-rated to help you to understand the amount and level of study that is needed.

One credit is equal to 10 hours of directed study time (this includes everything you do e.g. lecture, seminar and private study).

Credits are assigned to one of 5 levels:

- 3 Equivalent in standard to GCE 'A' level and is intended to prepare students for year one of an undergraduate degree course.
- 4 Equivalent in standard to the first year of a full-time undergraduate degree course.
- 5 Equivalent in standard to the second year of a full-time undergraduate degree course.
- 6 Equivalent in standard to the third year of a full-time undergraduate degree course.
- 7 Equivalent in standard to a Masters degree.

Courses are made up of modules that are each credit weighted.

The module structure of this course:

<b>Level</b>	<b>Module Code</b>	<b>Module Title</b>	<b>Credit Weighting</b>	<b>Core/Option</b>	<b>Available by Distance Learning? Y/N</b>
4	CN4000	Information Systems Modelling & Design	20	Core	N

4	CN4001	Software Development	20	Core	N
4	CN4004	Maths for Computing	20	Core	N
4	CN4002	Computer Systems & Networks	20	Core	N
4	CN4003	Web Technologies	20	Core	N
4	CN4005	Mental Wealth; Professional Life 1 (IT Project Pitching)	20	Core	N
5	CN5000	Database Systems	20	Core	N
5	CN5005	Data Structures & Algorithms	20	Core	N
5	CN5006	Web and Mobile App Development	20	Core	N
5	CN5009	Mental Wealth; Professional Life 2 (Computing in Practice)	20	Core	N
5	CN5004	Advanced Programming	20	Core	N
5	CN5002	Data Communications and Networks	20	Core	N
P	CN5007	Placement Module	120	Optional	N
6	CN6003	Computer and Network Security	20	Core	N

6	CN6005	Artificial Intelligence	20	Core	N
6	CN6000	Mental Wealth; Professional Life 3 (Project)	40	Core	N
6	CN6035	Mobile and Distributed Systems	20	Core	N
6	CN6008	Advanced Topics in Computer Science	20	Core	N

*Please note: Optional modules might not run every year, the course team will decide on an annual basis which options will be running, based on student demand and academic factors, in order to create the best learning experience.*

Additional detail about the course module structure:

For successful applicants for study and work placement abroad at term 2 of level 5, students will replace CN5002, CN5004 and CN5009 by 60 credits at China partner institute.

A core module for a course is a module which a student must have passed (i.e. been awarded credit) in order to achieve the relevant named award. An optional module for a course is a module selected from a range of modules available on the course.

The overall credit-rating of this course is 360 credits. If for some reason you are unable to achieve this credit you may be entitled to an intermediate award, the level of the award will depend on the amount of credit you have accumulated. You can read the University Student Policies and Regulations on the UEL website.

## Course Specific Regulations

N/A

## Typical Duration

It is possible to move from full-time to part-time study and vice-versa to accommodate any external factors such as financial constraints or domestic commitments. Many of our students make use of this flexibility and this may impact on the overall duration of their study period.

The expected duration of this course is three (3) full-time, four (4) years sandwich or five (5) part-time.

A student cannot normally continue study on a course after 4 years of study in full time mode unless exceptional circumstances apply and extenuation has been

granted. The limit for completion of a course in part time mode is 7 years from first enrolment.

## Further Information

More information about this course is available from:

- The UEL web site ([www.uel.ac.uk](http://www.uel.ac.uk))
- The course handbook
- Module study guides
- UEL Manual of General Regulations (available on the UEL website)
- UEL Quality Manual (available on the UEL website)
- School web pages

All UEL courses are subject to thorough course approval procedures before we allow them to commence. We also constantly monitor, review and enhance our courses by listening to student and employer views and the views of external examiners and advisors.

Additional costs:

N/A

## Alternative Locations of Delivery

N/A