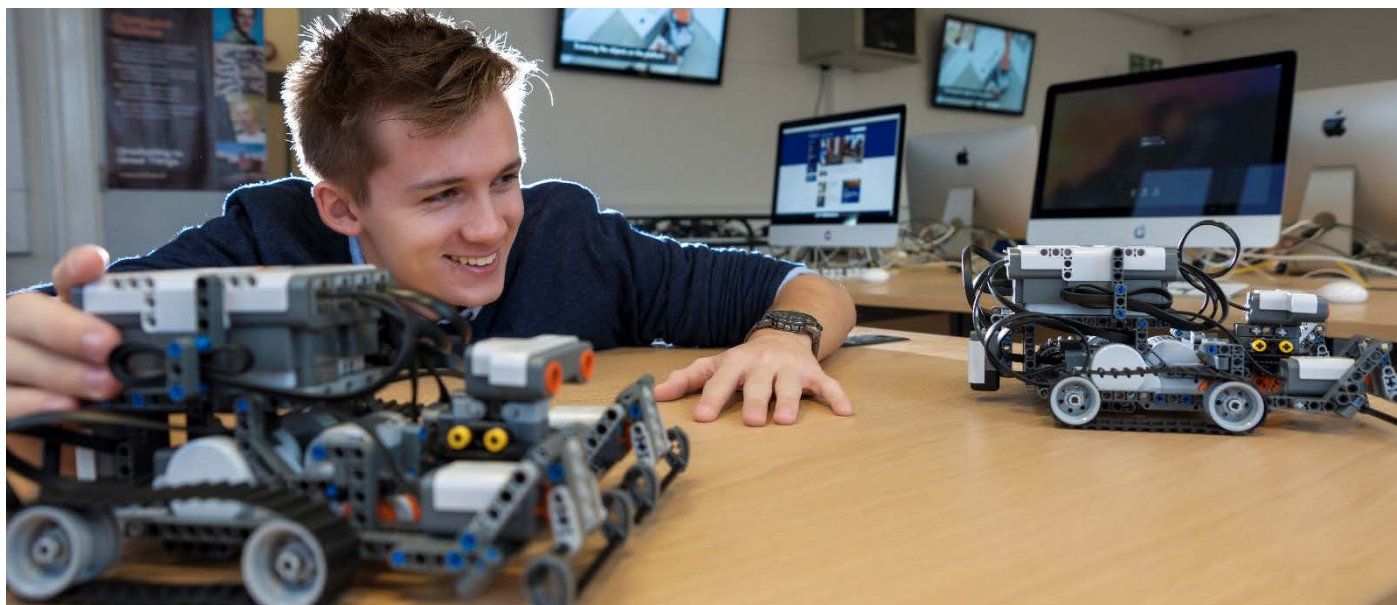


# Computer Sciences (with a Foundation Year)

A four-year route to a range of BSc degree programmes in Computer Science



UCAS Code: G408 | 4 Years (1+3) | Full-time

This course provides students with the opportunity to enter a range of Computer Science BSc (Hons) degree programmes.

## Entry Requirements

A typical offer is likely to be CDD or 80 points in three subjects at A Level, preferably in related subjects. Students with alternative A Level combinations are welcome to apply but should expect to be made higher offers. All students must meet the baseline GCSE requirements of 5 GCSEs at grade C or above including Mathematics (grade 5 if numerical), English Language (grade 4 if numerical) and Sciences (either core and additional science or two separate sciences). Adult learners will be considered without Level 3 qualifications but must meet the GCSE requirements and may be invited for interview. Students with overseas qualifications should contact the college to enquire about whether their qualification are accepted for entry.

Students holding offers at the University of Liverpool may be made a change of course offer to G408, after the examination results, if they fail to gain the required number of points for their first choice course.

Applicants will be expected to fall into one of the following categories:

Adult learners returning to education with A Level passes

.....  
Adult learners returning to education with 5 GCSE / O Level passes or more inc. Maths, Sciences and English Language

.....  
Sixth Form school leavers currently studying A Levels or BTEC L3 Extended Diploma (Applied Science)

.....  
Students from within the European Union

## CONTACT

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Quality Assurance Agency  
for Higher Education



UNIVERSITY OF  
**LIVERPOOL**

**carmel**  
college

# Course Modules

All students will study Maths and two other modules over the two semesters. Students can choose modules to make up their own programme. Certain subjects are compulsory for entry onto specific degree courses marked on the course selection chart; [E] essential, [P] preferred and [O] optional.

## Mathematics (2 semesters compulsory)

This module introduces graph work, differentiation and integration, vectors, statistics, trigonometry, logarithms, iteration and partial fractions. Students can expect to develop problem solving and analytical skills.

## Additional Mathematics

(2 semesters preferred)

This module covers sequencing and series, binomials, complex numbers, polynomials, differentiation, mechanics, momentum, vectors and differential equations. Students can expect to further develop their problem solving and analytical skills.

## Computing (2 semesters optional)

This module covers hardware & software, basics of programming, components of a processor, data representation, algorithms for data structures, defining problems using Boolean logic, systems analysis, databases, project management.

## Physics (2 semesters optional)

The module explores measurement, mechanics, electricity thermodynamics, atomic physics, forces, magnetism, materials, waves and oscillations. Regular assignments extend the ideas studied as part of the lecture course. Practical work will reinforce theory.

## Biology (2 semesters optional)

The module covers cell structure and function, biological molecules, cell division, genetics and metabolism. Semester two includes hormonal control, transport systems in mammals and multicellular animals, the action of drugs, pharmacology and immunity. There are lots of opportunities for lab investigations and practical sessions.

## Chemistry (2 semesters optional)

This module covers atomic structure, atoms & moles, the periodic table, chemical bonding, chemical energy, kinetics and an introduction to organic chemistry, alkanes and alkenes. In the second semester organic chemistry, the chemistry of the main group elements & equilibria are studied in further depth.

## Geography (2 semesters optional)

The module takes an enquiry approach into the investigation of the way people interact with their varied environments. Topics include ecosystems, atmospheric processes, natural hazards and environmental pollution. Students will develop a range of case studies concerning the questions, issues and problems these geographical areas present.

## Progression

Assessment is by examination and coursework. Students are expected to score an overall mark of 50% to progress to the second year of the course starting the first year of:

G400 Computer Science  
G403 Computer Science with a year in industry (4 yrs)  
GG14 Mathematics and Computer Science  
GN34 Financial Computing  
GG16 Mathematics and Computer Science with a year in industry (4 yrs)  
G3N4 Financial Computing with a year in industry (4 yrs)  
G610 Computer Science with Software Development  
G611 Computer Science with Software Development with a year in industry (4 yrs)

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