



PARTNERS ACADEMIC SUMMER SCHOOL 2024

Syllabus for – Computing Science

Subject Area

This syllabus is for PARTNERS applicants seeking to progress to the degrees of:

- G400 BSc Computer ScienceE
 - G401 BSc Computer Sci with Ind Placement
 - G450 BSc Computer Science (Game Engineering)
 - G451 BSc Computer Science w Ind Plac (Game Engineering)
 - G600 BSc Computer Science (Software Eng)
 - G603 BSc Computer Scii w Ind Plac (Software Engineering)
 - I195 BSc Computer Science (Cyber Security)
 - I196 BSc Hons Comp Sci Ind Pl (Cyber Security)
 - I612 Computer Science with Industrial Placement (Games Engineering)
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Aims

To allow students to demonstrate their potential to succeed in specified degree programmes by showing a grasp of entry-level subject-specific knowledge, understanding, cognitive and subject-specific skills.

Learning Outcomes

A good knowledge and understanding of...

- The principles that underpin computational problem solving and abstraction, mainly through the practice of computer programming
- An overview of object-oriented programming, and low-level programming and abstraction
- Programming concepts, computing fundamentals, and different levels of abstraction

The ability to apply this knowledge and critical understanding to...

- Problem-solving
- Both program design and implementation
- The practice of the analysis and creation of computer programs in formal programming language

Competence in...

- Computer programming and problem-solving
 - The application of algorithmic thinking
 - Logical decomposition of problems and solutions
 - Communication of complex ideas simply and their expression via the medium of computer programs and their logical underpinnings
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Summer School Syllabus

Please see subject timetable for more information

Activities for Personal Study

Students will progress by guided, online programming and logical problem-solving exercises. Activities and necessary resources for personal study will be provided during the summer school.

Online Teaching:

Monday 1st , Tuesday 2nd July

On-Campus Teaching:

Wednesday 3rd (PM), Thursday 4th & Friday 5th July

Formative Assessment Details

Formative assessment will be completed during the summer school and will take the following forms: Two Python Programs, a Canvas quiz on Java and a Java program.

Hand-in Method

Digital

Assessment deadline

Thursday 11th July