WHAT WILL STUDENTS LEARN?

Computational Thinking
Students will take a problem in any context, brainstorm possible solutions, then abstract and automate a solution.

Programming Languages
Key skills such as personal effectiveness, communication, critical thinking and more are developed through programming concepts, using languages such as Python and Javascript.

Design and Collaboration
Students will create meaningful digital products individually and in teams using reflective design processes.

Computers and Society
Students will learn about the ethical and social impact of computing technologies, Artificial Intelligence, Big Data, and more, on humans and society.

Four Applied Learning Tasks

Strand 3 comprises four Applied Learning Tasks. These give students opportunities to apply their skills and learn to create digital artefacts in a collaborative manner.

Interactive Information Systems
ALT 1
Students will develop an interactive website that can display information from a database to meet a set of user needs.

Analytics
ALT 2
Students will identify a topic from other subjects or disciplines, and analyse information relevant to that topic to inform and influence decisions around that topic.

Modelling and Simulation
ALT 3
Students will engage with a problem that is difficult to solve analytically, but that is amenable to a solution using simulation or modelling.

Embedded Systems
ALT 4
Students will implement a microprocessor system that uses sensors and controls digital inputs and outputs.

DON'T JUST WAIT FOR THE FUTURE TO HAPPEN: CREATE IT

ncca.ie/en/senior-cycle
The accelerated expansion of computing technologies and artificial intelligence into all our lives means students need to understand the principles of computer science now, more than at any other time. Students studying this subject will gain both thinking and practical skills that are valuable well beyond the computer science classroom and into any future career.

The study of algorithms and programming, and the impact of computers on society. It has its roots in design, engineering, maths, psychology and human creativity. Computer Science seeks creative ways to solve problems and evaluate solutions. It is about finding automated solutions to almost any problem you can imagine.

Why Computer Science?

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What is Computer Science?

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Who is it for?

Computer Science is for all students. It is structured to enable all students, of all abilities, to embrace this subject and succeed in every aspect of the course. Every career choice will increasingly require both digital and computer science literacy.

COMPUTER SCIENCE IS NO MORE ABOUT COMPUTERS THAN ASTRONOMY IS ABOUT TELESCOPES.

EDSGER DIJKSTRA
PIONEER IN COMPUTER SCIENCE

Phase 1 schools to be assessed in 2020.

Leaving Certificate Computer Science is an optional subject students can choose in 5th Year.

Every career choice will increasingly require both digital and computer science literacy.

ASSOCIATION OF IRELAND

COMPUTER SCIENCE PHASE 1

DESIGNED COLLABORATIVELY BY A TEAM OF COMPUTER SCIENCE EDUCATORS AND STAKEHOLDERS.

40 SCHOOLS SELECTED TO BEGIN THE COURSE IN SEPTEMBER 2018.

Phase 1 schools to be assessed in 2020.

Leaving Certificate Computer Science is an optional subject students can choose in 5th Year.

Course Structure

Three Strands

- **STRAND 1 - PRACTICES AND PRINCIPLES**
  - Computational Thinking
  - Computers and Society
  - Design and Development

- **STRAND 2 - CORE CONCEPTS**
  - Abstraction
  - Basic Algorithms
  - Computer Systems
  - Data
  - Evaluation and Testing

- **STRAND 3 - COMPUTER SCIENCE IN PRACTICE**
  - Interactive Information Systems
  - Analytics
  - Modelling and Simulation
  - Embedded Systems

ASSESSMENT BREAKDOWN

70% | 30%

End of Course Examination | Individual Final Year Project

Python and Javascript will be the programming languages for assessment purposes in Phase 1.