

Warning: An incomplete or missing proforma may have resulted from system verification processing

Title: Subject Pedagogy in Computer Science
Status: Definitive
Code: **6005ITT** (125007)
Version Start Date: 01-08-2021

Owning School/Faculty: Education
Teaching School/Faculty: Education

| Team | Leader |
|-------------|--------|
| Paul Killen | Y |

Academic Level: FHEQ6 **Credit Value:** 20 **Total Delivered Hours:** 40
Total Learning Hours: 200 **Private Study:** 160

Delivery Options

Course typically offered: Semester 1

| Component | Contact Hours |
|-----------|---------------|
| Lecture | 35 |
| Tutorial | 2 |
| Workshop | 3 |

Grading Basis: 40 %

Assessment Details

| Category | Short Description | Description | Weighting (%) | Exam Duration |
|--------------|-------------------|------------------------|---------------|---------------|
| Portfolio | Chapter | 3000 words | 80 | |
| Presentation | Present | 1000 words equivalence | 20 | |

Aims

To enable you to have a critical understanding of the nature of computer science education;
To enable you to analyse how computer science is taught in the 11-18 sector;
To enable you to investigate the development of learners' understanding and barriers

to learning in computer science ;

To enable you to critically evaluate strategies to enable learning in computer science

Learning Outcomes

After completing the module the student should be able to:

- 1 Analyse and synthesise knowledge in relation to learning, teaching and assessment in computer science.
- 2 Critically reflect on the computer science curriculum.
- 3 Review evidence to evaluate potential impact on learning and progress in computer science.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

| | | |
|-------------------------------|---|---|
| Portfolio: book chapter | 1 | 3 |
| Presentation: chapter outline | 2 | |

Outline Syllabus

Effective learning in computer science within the 11-18 sector:

The National Curriculum and frameworks and initiatives relating to computer science in the 11-18 sector;

Approaches to pedagogy in computer science ;

Current research and policies on learning, teaching and assessment applicable to computer science in the 11-18 sector;

Strategies/activities to use ICT to enhance teaching and learning in computer science ;

Effective learning within computer science ;

Issues in development of learning in secondary learners with reference to computer science ;

Strategies for investigating and critically evaluating research literature;

Design a teaching resource for computer science ;

Learning Activities

- Key theoretical/policy perspectives, along with an overview of learner development and individual needs;
- Lectures and workshops will provide opportunities to evaluate learning, teaching and assessment activities within computer science.
- Support will be provided to enable students to develop their critical, analytical and evaluative skills in relation to their own approaches to learning, teaching and assessment within computer science and to review subject focused literature;
- Online resources will support and enhance student learning and engagement;

Notes

This module is part of the Joint MEng Computer Science with Education programme. It aims to equip participants with an understanding of the computer science curriculum in England and approaches to learning, teaching and assessment in computer science.