



Coding & Computational Thinking (Special Purpose Award, Level 8)

Aims The aim of this programme is to develop the knowledge, skill sets and competencies of participants who do not have a formal background in Computer Science to be able to deliver computing programmes in schools and computer clubs in an educational, fun and engaging way. This course provides participants with the skills to teach coding and computational thinking using project based learning. More specifically, participants will be able to formulate computational problems logically, and to bring ideas through to successful completion by design and development of coding projects. It provides exposure to a wide range of innovative open source technologies and resource packs; thus providing a cost effective and accessible deployment model for your school or club. This core strands of this programme will include Web based games and applications, Mobile Design and Development concepts and an introduction to Electronic components. This course addresses the learning outcomes of the new Junior Certificate Short Course in Computing as introduced by the National Council for Curriculum and Assessment (NCCA). It enables teachers to deliver that programme within their schools, or to implement code clubs. **Entry requirements** This programme is primarily aimed at teachers and those running computer clubs for children and teenagers. Candidates should hold an honours degree in a non-cognate discipline or approved equivalent qualification. Prospective participants who do not meet the entry requirements for the programme detailed above, but who may qualify for admission by meeting certain other equivalent criteria, should apply to the Admissions Office for consideration. **Content** An active approach to teaching and learning is employed. On completion of this course, the participant will/should be able to

- Demonstrate an understanding of the theory, concepts and methods pertaining to design and development of interactive applications
- Apply computational logic and design practices to construct a software project through visual and/or text programming tools for web and mobile application deployment
- Program and troubleshoot wearable devices using electronic kits and coding
- Analyse and appraise emerging technologies, and in particular the wealth of widely available resources that can be employed in the classroom from technological, accessibility and cost perspectives.
- Evaluate and employ appropriate problem solving strategies and techniques.

Qualification Certificate in Coding & Computational Thinking (Special Purpose Award, Level 8, 10 Credits) [video width="1920" height="1080"

mp4="https://flexiblelearning.lit.ie/wp-content/uploads/2017/06/Hassan-Dabbagh-School-Implementation-Technologist-Views-on-Programme.mp4"][/video] [video width="1920" height="1080"

mp4="https://flexiblelearning.lit.ie/wp-content/uploads/2017/06/Mary-Gorey-Testimonial.mp4"][/video]

Award:Certificate in Coding & Computational Thinking (Level 8, 10 Credits)

Department:Flexible Learning

Campus:LIT Thurles, Online

Level:8

Duration:16 Weeks

The Certificate is delivered over 16 weeks.

Content is delivered by a series of small projects with step-by-step instructions, accompanied by

ongoing encouragement and direction to build competence. Content will be delivered via a blended approach with a mix of workshops/meet-ups, demonstrations, discussion fora, and online project work.

There are four meet-up sessions planned, where the technologies for the next block of content will be demonstrated and the projects explained. This meet-up also allows for sharing of knowledge and implementation ideas with teachers from other schools.

To access the online course projects you will need a computer with a webcam and internet connection. We will use open source free development tools such as AppInventor or AppLab, HTML/CSS/Javascript, Unity/Fungus, Tynker, Blockly, GameMaker. Introductory electronic kits such as the MicroBit and the Microbit Inventor Kit will be necessary which has a cost implication of €65 per kit. The participation will purchase the kit separately.

This programme will commence on Saturday 29th September. There are four Saturday workshops in total and the dates for the remainder are as follows: 10th Nov, 19th Jan, and 9th March.

Course Location:LIT Thurles, Online Delivery

Application Deadline:28th September 2018

Entry Requirements:

This programme is primarily aimed at teachers and those running computer clubs for children and teenagers.

Candidates should hold an honours degree in a non-cognate discipline or approved equivalent qualification. Prospective participants who do not meet the entry requirements for the programme detailed above, but who may qualify for admission by meeting certain other equivalent criteria, should apply to the Admissions Office for consideration.

Weeks

Course Fees:

€600

Contact:

[Computing for Teachers -Flyer 2018 2019 \(00000002\)](#)

For further information:

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For Academic Related Queries:

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