

MCIT103 Technical Training in Computer Education

ECTS Value: 5 ECTS

Overall Objectives and Outcomes

The aim of this module is to develop participant competences and pedagogical knowledge in relation to teaching the technical aspects of Computing and Information Technology curricula. This module seeks to:

1. Identify the importance of the technical part of computing curricula particularly in relation to VET Information Technology;
2. Bridge the gap between theory and practice;
3. Develop appropriate teaching plans related to the particular content and different abilities;
4. Gain the necessary pedagogical skills related to technical education.

By the end of this module, the learner will be able to:

Competences

- a. Develop teaching material related to Technical training in the areas of Computing and Information Technology;
- b. Design effective lesson plans and resources which include practical sessions to engage students;
- c. Design relevant assessment methodologies to best measure student performance and understanding of the subject concepts and practices;
- d. Discuss syllabus content with fellow colleagues and suggest ways on how to best present the material;
- e. Take ownership of the syllabus content and eventually suggest improvement a par with technology developments.

Knowledge

- a. Identify the different practices in teaching technical education;
- b. Identify different scenario-based teaching methods to bridge the gap between theory and practise;
- c. List the different approaches to teaching technical education;
- d. Relate technical education as presented to actual real-life processes and/or procedures;
- e. Describe appropriate scenarios or examples to better contextualise the knowledge acquired.

Skills

- a. Develop specific teaching strategies in technical education;
- b. Design appropriate assessment methods to measure student progress;
- c. Relate syllabus content to real life practices, thus creating effective content related to Computing and Information Technology.

Assessment Methods

This module will be assessed through: Presentation and Assignment

Suggested Readings

1. Barendsen, E., Schulte, C., and Sentence, S. (2018). Computer Science Education: Perspectives on Teaching and Learning in School. Bloomsbury.
2. Simons, C. and Hawkins, C. (2015). Teaching Computing (Developing as a Reflective Secondary Teacher). Sage Publications.
3. Simons, C. and Hawkins, C. (2009). Teaching ICT (Developing as a Reflective Secondary Teacher). Sage Publications
4. Lau, W. (2017). Teaching Computing in Secondary Schools: A Practical Handbook. Routledge.
5. Connell, A., Edwards, A., Hramiak, A. Rhoades, G. and Stanley, N. (2014). A Practical Guide to Teaching Computing and ICT in the Secondary School. Routledge.