

2024 / 25

School of Science and Computing

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TU**

Ollscoil
Teicneolaíochta
an Oirdheiscirt

South East
Technological
University

Module Descriptor

Instructional Design (Computing and Mathematics)

Instructional Design (A13481)

Short Title: Instructional Design
Department: Computing and Mathematics
Credits: 5

Level: Advanced

Description of Module / Aims

Instructional Design is the analysis of how people learn and the systematic development of instruction. This module introduces students to the core fundamentals of learning theories as a pre-requisite to designing effective e-learning solutions. This module focuses upon theories of learning and their practical implications in the design of effective blended and technical solutions in training and instruction.

Programmes

stage/semester/status		
DESG-0038	BSc (Hons) in Creative Computing (WD_KCRCO_B)	4 / 7 / E
DESG-0038	BSc (Hons) in Multimedia Applications Development (WD_KMULM_B)	4 / 1 / E

Indicative Content

- Theories of learning
- Implications of pedagogical approaches to the effective design of training and learning solutions
- The instructional design process
- Evaluation of current instructional design technologies and delivery systems

Learning Outcomes

On successful completion of this module, a student will be able to:

1. Evaluate key assumptions within the main learning paradigms.
2. Assess the practical implications of pedagogical approaches to the effective design of training and learning solutions.
3. Evaluate current instructional technologies and assess the practical implications in designing effective training and learning solutions.
4. Design and develop an effective training solution based upon theoretical assumptions explored in the module.

Learning and Teaching Methods

- This module will be delivered using 2 hours of computer-based Lectures, along with 2 hours of computer-based Practicals each week.

Learning Modes

Learning Type	F/T Hours	P/T Hours
Lecture	24	
Practical	24	
Independent Learning	87	

Assessment Methods

	Weighting	Outcomes Assessed
Continuous Assessment	100%	
Assignment	50%	1,2
Assignment	50%	3,4

Assessment Criteria

<40%: Unable to interpret and describe key concepts of the paradigms of learning.

40%–49%: Be able to interpret and describe key concepts of learning theories and their implications.

50%–59%: Ability to discuss key concepts of theories of learning and ability to discover and integrate related knowledge in other knowledge domains.

60%–69%: Be able to solve problems within the learning theories by experimenting with the appropriate skills and tools.

70%–100%: All the above to an excellent level. Be able to analyse and design solutions to a high standard for a range of both complex and unforeseen problems through the use and modification of appropriate skills and tools.

Supplementary Material(s)

- Cennamo, K. and P. Kalk. *Real World Instructional Design*. 3rd. UK: Wadsworth Publishing, 2014.
- Jordan, A., O. Carlile and A. Stack. *Approaches to Learning: A Guide for Teachers*. 1st ed. UK: McGraw-Hill: Open University Press, 2008.
- Morrison, R., M. Kemp and P. Ross. *Designing Effective Instruction*. UK: Wiley, 2006.

Requested Resources

- Room Type: Computer Lab