

2024 / 25

School of Science and Computing

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🌐 [www.wit.ie/schools/science\\_computing](http://www.wit.ie/schools/science_computing)



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## Module Descriptor

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### ICT Skills Studio (Computing and Mathematics)

**Short Title:** ICT Skills Studio  
**Department:** Computing and Mathematics  
**Credits:** 5

**Level:** Intermediate

## Description of Module / Aims

Continue to develop the students' programming skills with a particular focus on modern web development tools, frameworks and applications. A strong emphasis industry best practice - with close attention software configuration management tools. The Studio will also support a forum for talks and seminars from industry on technology trends and work practices.

## Programmes

stage/semester/status

COMP-0521 Higher Diploma in Science in Computer Science (WD\_KCOSC\_G)

1 / 2 / M

## Indicative Content

- Consolidating programming principles & practices
- Elementary algorithms & data structures
- Web development applications design & implementation
- Server side and client side aspects of web development
- Current trends in software development technology

## Learning Outcomes

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

1. Construct a simple but robust server-rendered web application.
2. Differentiate the role of the client and server in this context.
3. Break a problem domain into a series of discrete features.
4. Manage the assets of a project in a configuration management environment.

## Learning and Teaching Methods

- Supervised, guided and scripted practicals will lead the student through the construction of selection of small applications, designed to illustrate key concepts covered in the lectures.
- Worked Laboratory Exercises.
- Short Lectures to outline specific concepts.

## 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	100%	1,2,3,4

## Assessment Criteria

<40%: Unable to interpret, describe or implement key components of a simple web application.

40%–49%: Be able to construct a minimal web application, incorporating server side rendering.

50%–59%: Design and implement a web application including basic database and session support.

60%–69%: All of the above including a simple model of the application structure.

70%–100%: All the above to an excellent level. Incorporate Unit Tests for a specific subset of an application.

## Supplementary Material(s)

- Richard-Foy, J. *Play Framework Essentials*. New York: Packt Publishing, 2014.
- Syed, B. *Beginning Node.js*. New York: Apress, 2014.

## Requested Resources

- Computer Lab: BYOD Lab