



Waterford Institute of Technology
INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE

ICT Skills Programme



Higher Diploma in Science in Computer Science

Introduction

Timetable for Day 1

- 9:15-10:30
 - Calendar, Timetable & Assessment schedule
 - Review of the Course
 - E-Learning & Moodle
 - Placement
- 10:30-11:15
 - Coffee Break
- 11:15-1:15
 - Programming Introduction + Lab Setup

ICT Skills Programme



Timetable

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9:15 a.m.	Programming	Web Development	Computer Networks	Computer Systems	Database
10:15 a.m.					
11:15 a.m.	<i>Dr. Siobhan Drohan</i>	<i>Eamonn de Leastar</i>	<i>Lucy White</i>	<i>Caroline Cahill</i>	<i>Dr. Brenda Mullally</i>
12:15 p.m.					
1:15 p.m.		LUNCH	LUNCH	LUNCH	LUNCH
2:15 p.m.		Programming	Programming		
3:15 p.m.		<i>Dr. Siobhan Drohan</i>	<i>Dr. Siobhan Drohan</i>		
4:15 p.m.					

Calendar - Semester 1

- 12 weeks tuition
- 4 weeks reading/study/
easter
- 2 week exam period
- 4 weeks Summer School
- Semester 2 commences
September 11

Semester 1		S	M	T	W	T	F	S
Week								
January		1	15	16	17	18	19	20
		2	22	23	24	25	26	27
		3	29	30	31	1	2	3
February		4	5	6	7	8	9	10
		5	12	13	14	15	16	17
reading-week		19	20	21	22	23	24	25
		6	26	27	28	1	2	3
March		7	5	6	7	8	9	10
		8	12	13	14	15	16	17
		9	19	20	21	22	23	24
		10	26	27	28	29	30	31
		11	2	3	4	5	6	7
April easter-break		9	10	11	12	13	14	15
		16	17	18	19	20	21	22
		12	23	24	25	26	27	28
study-period		30	1	2	3	4	5	6
May exam-period		7	8	9	10	11	12	13
		14	15	16	17	18	19	20
		21	22	23	24	25	26	27
		28	29	30	31	1	2	3
June Summer School		4	5	6	7	8	9	10
		11	12	13	14	15	16	17

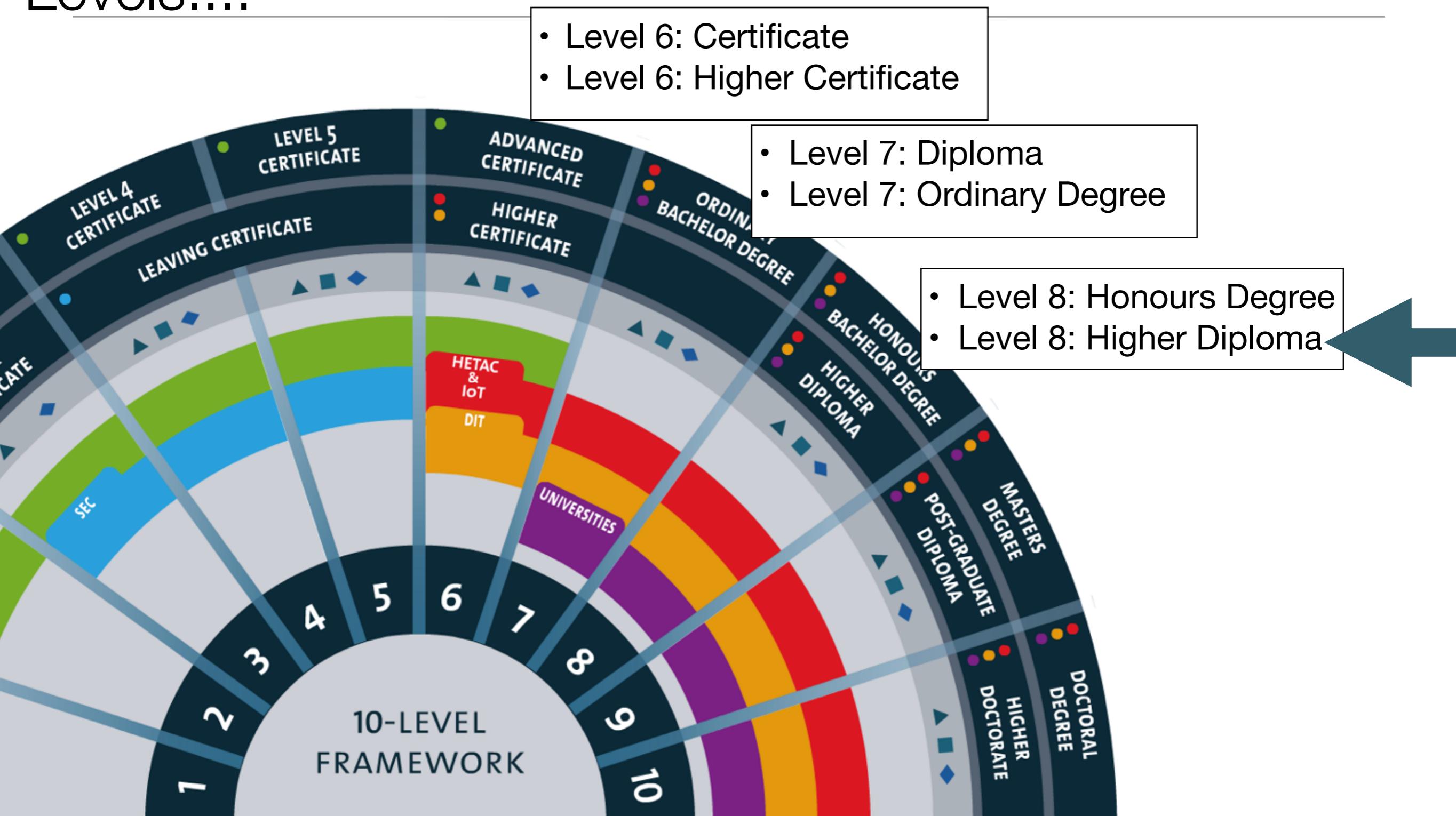
ASSESSMENT SCHEDULE

	1	2	3	4	5	reading-week	6	7	8	9	10	11	easter-break	12	study-break	Exam period	Final CA
Programming						A1							A2				A3
Web Development						A4											A5
Database													A6			exam	
Computer Systems							A7									exam	
Computer Networks								A8								exam	

- Programming - 3 assignments (A1, A2, A3)
- Web Development - 2 assignments (A4, A5)
- Database - 1 assignment + 1 final examination (A6, exam)
- Computer Systems - 1 assignment + 1 final examination (A7, exam)
- Computer Networks - 1 assignment + 1 final examination (A8, exam)

The Course

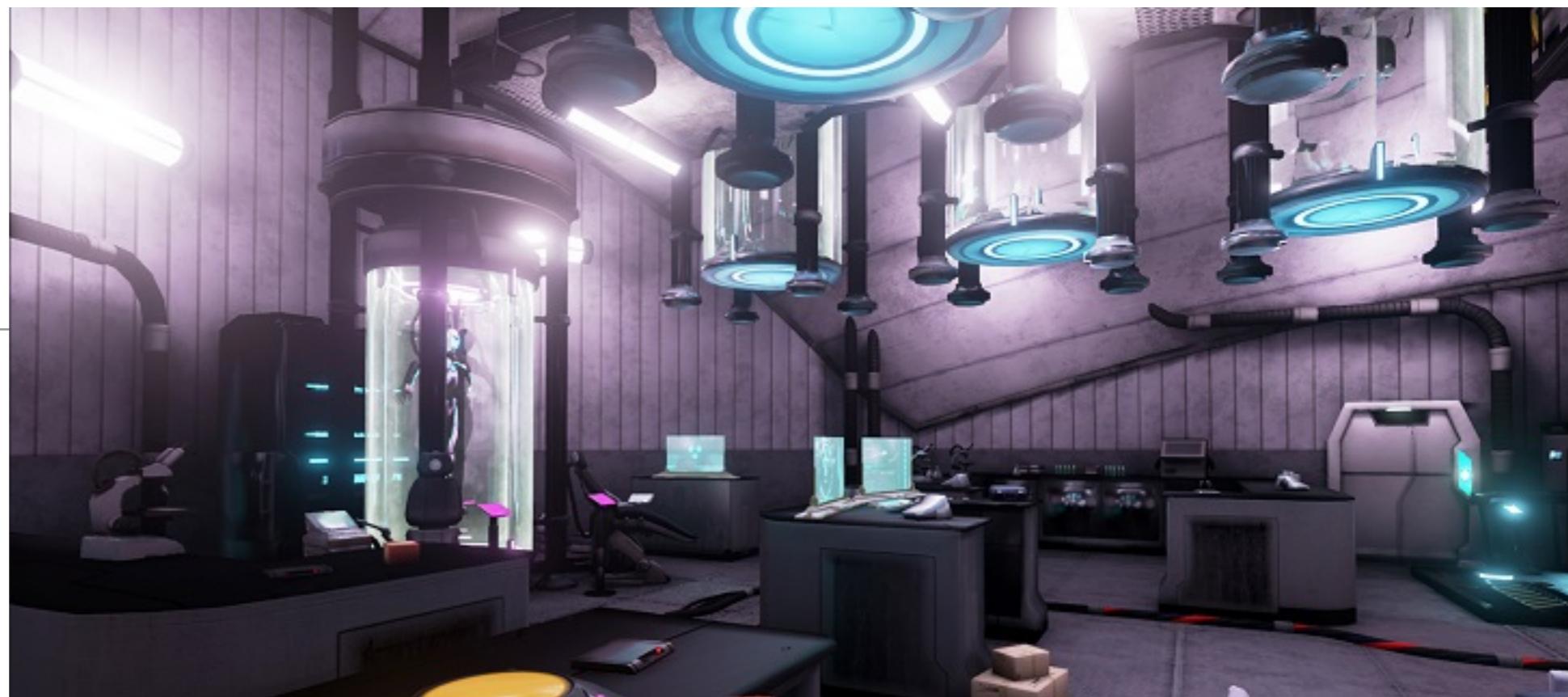
Qualification/ Programme Levels....



Key Programme Features

- Immersion
- Specialisation
- Industry Partnership

Immersion in Computing Knowledge



“The participants will be graduates who have already obtained significant transferable skills by comparison with other undergraduate students...”

“Semester 1 participants will undertake a broad immersive set of modules in the fundamentals of computing...”

“The pace of delivery will have to be significantly higher than for normal undergraduate programmes...”

Deepening and Specialisation



“In semester 2 ... a specialisation which reflects their own strengths as demonstrated on the programme to date...”

“.. a focused set of modules and project-work designed to bring candidates quickly to the industry entry standard ...”

“Participants will be expected to select their specialisation based on their achievement in semester 1 and their own ambitions...”

Industry experience and professional development



“Internships or work placements are seen as crucial to providing graduates with the context and confidence in their new knowledge...”

“Outputs expected from the work placement would include a work placement report, a project ideally conducted in the work placement organisation...”

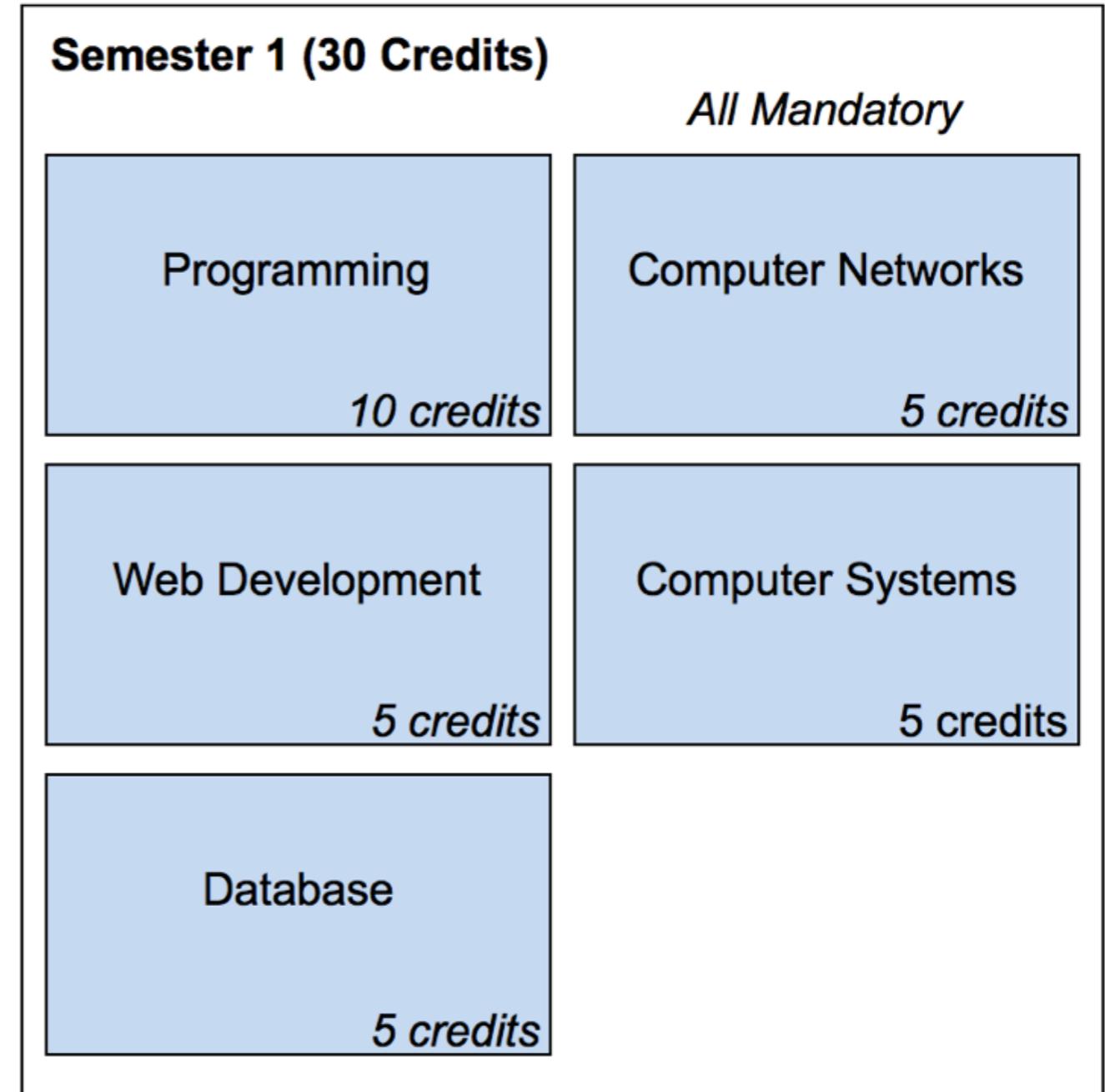
“...academic and industry partners will cooperate in the provision of appropriate academic supervision resources for the duration of this work placement activity...”

Structure of the Programme

Semester 1 (30 Credits)		Semester 2 (30 credits)	Semester 3 (30 credits)
<i>All Mandatory</i>		<i>Specialisms (select 2)</i>	
Programming <i>10 credits</i>	Computer Networks <i>5 credits</i>	Mandatory	Project/Placement <i>30 credits</i>
Web Development <i>5 credits</i>	Computer Systems <i>5 credits</i>	Project/Summer School <i>5 credits</i>	Mandatory
Database <i>5 credits</i>		Developer Operations <i>5 credits</i>	Enterprise Service Development <i>10 credits</i>
			Security & Forensics <i>10 credits</i>

Semester 1

“..a broad immersive set of modules in the fundamentals of computing covering software development, systems analysis & testing, databases, architecture, OS & networking, web design / user-experience..”



Semester 1: Summer School

Project/Summer School

5 credits

- Commences at conclusion of foundation modules.
- 6-week duration
- Students to relocate to TSSG Cariganore campus for the duration

Key Features:

- *Industry Partner Engagement:* partners invited to participate in ongoing seminars to present their industry segment/core technology, candidate project ideas and placement opportunities
- *TSSG Research Group Exposure:* Researchers will present on topics relevant to the programme and to the level of its participants. Students will be invited to contribute State-of-the-Art reviews for selected topics
- *Student Project Proposal:* A central part of the summer school is the evolution of a student project proposal.
- *Ongoing Tuition:* Programming tuition will continue during this period via supervised labs, ongoing assessed project work.

Semester 2

“In semester 2 students are expected to take a specialisation which reflects their own strengths as demonstrated on the programme to date...”

Semester 2 (30 credits)

Specialisms (select 2)

Mandatory

Project/Summer School

5 credits

Enterprise Service Development

10 credits

Developer Operations

5 credits

Security & Forensics

10 credits

Semester 3

“Internships or work placements are seen as crucial to providing graduates with the context and confidence in their new knowledge. ...academic and industry partners will cooperate in the provision of appropriate academic supervision resources for the duration of this work placement activity...”

Project Lifecycle:

- Develop a project proposal draft during the summer school in consultation with partners
- Academic Project supervisor appointed in Semester 2
- Ongoing contact with supervisor during Semester 3
- Project assessed a conclusion

Semester 3 (30 credits)

Project/Placement

30 credits

Mandatory

Strong Industry Support

Mr Eamonn De Leastar,
Waterford Institute of Technology,
Cork Road,
Waterford.
18th December 2012.

Dear Eamonn,

On behalf of FUSE I would like to express our support for this program. We believe that this program offers a unique opportunity to bring academic and industry expertise together.



Local Procurement Project



amazing experiences!

Eamonn de Leastar
Waterford Institute of Technology
Cork Road,
Waterford,
Ireland

Dear Mr de Leastar,



selfield, Dublin 4 info@cernam.com

www.cerna

ppard,
Computing, Maths & Physics,
ence,
nstitute of Technology

that Cernam would like to support WIT
course.

ME specialising in digital evidence and in
operate with WIT on this programme and



Re: Expression of Interest -

Zolk C Limited,
Carriganore,
Co. Waterford

Online
Betapond.com
info@Betapond.
Facebook/Betap
@Betapond

Eamonn de Leastar,
WIT,
Cork Road,
Waterford.

Commitment to sup

To whom it concerns,
Betapond is an SME that employs
Waterford and London. Betapond



ArcLabs Research & Innovation Centre
WIT West Campus, Carriganore, Waterford

17 December, 2012

Dear Eamonn,

ArcLabs Research & Innovation Centre is the South technology companies. Since its inception in 2005 many of which are spin-outs from research at Waterford incubator provides a base for the New Frontiers Enterprise Platform Programme) and many of the centre. ArcLabs is also the focal point for helping In the past five years, more than 280 innovation projects in the region and beyond.

The biggest challenge facing high-growth technology resources, such as developers and early-stage companies recognise an aptitude for software development.

RE: HEA Skills Shortage, WIT one-year Higher Diploma in Computing

Eamonn de Leastar
Department of Computing, Mathematics & Physics
Waterford Institute of Technology
Cork Road
Waterford
IRELAND

Dear Eamonn,



Exceptional Web & Mobile Development

Waterford, Ireland
Phone: +353 01 5143545
Email: contact@nearform.com

14 Dec 2012

Waterford Institute of Technology
Cork Rd



Waterford Institute of Technology
WIT, Waterford, Ireland

Dear Sir/Madam,

nearForm Ltd is a technology business is internationally known in Romania. The company has been operating at an international level for over 10 years.

The company principals have a strong education, graduate place and relationship by supporting

Telecommunications Software & Systems Group
ArcLabs Research & Innovation Building,
WIT, West Campus,
Carriganore,
Co. Waterford,
Ireland.

15th December, 2012

To Whom it may Concern,

TSSG is an internationally recognised center of excellence for ICT research and innovation. We carry out a wide spectrum of industry-informed research in Information and Communications Technologies (ICT), particularly technologies enabling communications and information services. We create economic impact by translating our knowledge base and innovation into leading edge products and services by continuing our engagement with industry in collaborative R&D, knowledge generation and transfer. Over the past five years, TSSG has delivered innovative solutions to over 110 Irish companies, and has created 11 spin out companies in the South East.

The proposed programme represents an outstanding opportunity for the TSSG to continue its mission to the region. From our perspective, the curriculum aligns closely with the needs of ICT industry nationally, the applied research conducted within the group and specifically the needs of the cluster of enterprises that are co-located with the TSSG at Carriganore and Killaloe, Waterford.

FEEDHENRY™

FeedHenry Ltd.
ArcLabs Research & Innovation Building
WIT West Campus
Carriganore
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Ireland

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12th December 2012



EMAGINE MEDIA

ArcLabs, WIT West Campus
Carriganore, Waterford.

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f: +353 51 341100
e: info@tssg.org
w: www.tssg.org

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Friday, 14 December 2012

Proposed Programme Schedule – Semester 1 (12 weeks)

Module Number	Title of module	Pre-requisite Module(s)	Module status	NFQ Level	Credits	Contact hours (per week)				Allocation of marks (%)				
						Lecture	Tutorial	Practical	Total	Project	Continuous Assessment	Practical	Final Exam	Total
1	Programming Fundamentals – ICT Skills	[REDACTED]	M	8	10	2	[REDACTED]	6	8	[REDACTED]	100%	[REDACTED]	[REDACTED]	100%
2	Web Development	[REDACTED]	M	8	5	2	[REDACTED]	2	4	[REDACTED]	100%	[REDACTED]	[REDACTED]	100%
3	Computer Systems – ICT Skills	[REDACTED]	M	8	5	2	[REDACTED]	2	4	[REDACTED]	50%	[REDACTED]	50%	100%
4	Computer Networks – ICT Skills	[REDACTED]	M	8	5	2	[REDACTED]	2	4	[REDACTED]	50%	[REDACTED]	50%	100%
5	Databases – ICT Skills	[REDACTED]	M	8	5	2	[REDACTED]	2	4	[REDACTED]	50%	[REDACTED]	50%	100%
Totals per Week					35	10		14	24					

Proposed ICT Skills Summer School

6	Summer School – ICT Skills		M	8	5	[REDACTED]	[REDACTED]	5	5	[REDACTED]	100%	[REDACTED]	[REDACTED]	100%
Totals per week								5	5					

Proposed Programme Schedule – Semester 2 (12 weeks)

Module Number	Title of module	Pre-requisite Module(s)	Module status	NFQ Level	Credits	Contact hours (per week)				Allocation of marks (%)				
						Lecture	Tutorial	Practical	Total	Project	Continuous Assessment	Practical	Final Exam	Total
7	Developer Operations		M	8	5	1	[REDACTED]	3	4	[REDACTED]	100%	[REDACTED]	[REDACTED]	100%
8	Mobile Application Development – ICT Skills*		E	8	15	4	[REDACTED]	6	10	[REDACTED]	100%	[REDACTED]	[REDACTED]	100%
9	Enterprise Service Development – ICT Skills*		E	8	15	4	[REDACTED]	6	10	[REDACTED]	100%	[REDACTED]	[REDACTED]	100%
10	Security and Forensics – ICT Skills*		E	8	15	4	[REDACTED]	6	10	[REDACTED]	100%	[REDACTED]	[REDACTED]	100%
Totals per semester						9		15	24					

Bring Your Own Device - BYOD

- It is strongly recommended you have a laptop for this programme
- Recommended Minimum Specification:
 - Intel Core i5, 8Gb RAM or mac equivalent, + 200gb HD (SSD preferable)

Macbook Pro



Lenovo
Thinkpad
T440S



premium developer laptops

Opportunities for Further Study

- The development team are closely involved in the delivery of two potential follow-on graduate programmes:
 - MSc in Communications Software
 - MSc in Enterprise Software Systems
- These are mature courses, closely aligned with research at TSSG, with substantial enrolments in part-time mode from industry practitioners in the region.
- Successful candidates could continue their academic development in part-time or full-time capacity.



Programming Fundamentals

- Use IDEs (from starter e.g. BlueJ to more advanced e.g. Eclipse) and other java learning supports (e.g. Academic Java) with ease.
- Apply core problem solving approaches suitable for the programming discipline.
- Write simple Java programs using basic programming constructs and simple data structures.
- Understand, analyse and explain how programs using basic Java constructs and library class collections work.
- Design, develop and test persistent, multi-class applications using object-oriented principles including inheritance and polymorphism.
- Develop maintainable object-oriented applications

```
i=x  
while( n < (document.length() - 1) )  
{  
    n++;  
    char = event.charAt(n);  
    i++;  
    i++;
```

Semester 1 (30 Credits)	
Programming	<i>All Mandatory</i> 10 credits
Computer Networks	5 credits
Web Development	5 credits
Computer Systems	5 credits
Database	5 credits

Web Development

- Understand the fundamentals of the HTML markup language.
- Understand the role of Human Computer Interaction and manipulate CSS to present HTML content.
- Be able to integrate HTML, CSS and Java script to structure simple web sites.
- Understand how a dynamic web page is generated and be familiar with the role of html templating techniques
- Have an initial exposure to a web application framework and understand the roles of Models, Views and Controllers in this context.



Semester 1 (30 Credits)	
<i>All Mandatory</i>	
Programming	Computer Networks
<i>10 credits</i>	<i>5 credits</i>
Web Development	Computer Systems
<i>5 credits</i>	<i>5 credits</i>
Database	
	<i>5 credits</i>

Database

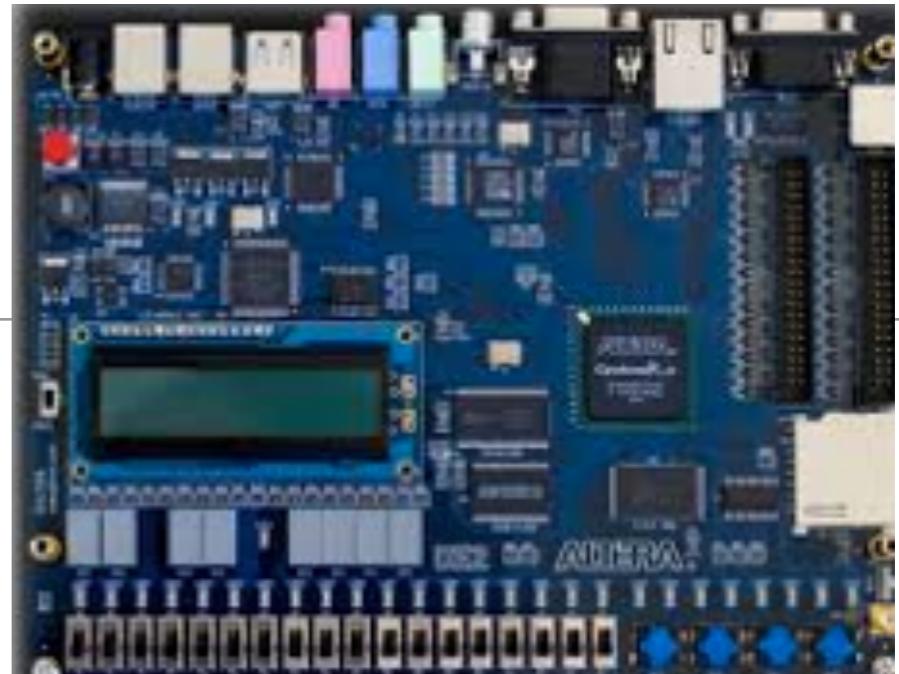
- Discuss the role of a database and its management system.
- Draw Entity Relationship (ER) diagram from an application problem and reproduce this diagram into a set of normalised relations, which are ready for database implementation.
- Design a NoSQL database suitable for a distributed environment with consideration of the CAP theorem.
- Gain an understanding of the physical database design process, its objectives and deliverables.
- Design and implement a database system



Semester 1 (30 Credits)	
All Mandatory	
Programming	Computer Networks
10 credits	5 credits
Web Development	Computer Systems
5 credits	5 credits
Database	
5 credits	

Computer Systems

- Perform calculations in binary, octal, decimal and hexadecimal number bases and understand the basics of Boolean Logic.
- Demonstrate the relationship between high-level software, low-level programming and hardware.
- Describe the memory management, process management and file management components of a modern operating system
- Explain the concepts and theory of virtualisation and in particular how this relates to Operating Systems management and development.
- Install and setup some contemporary operating systems (within a virtual PC environment),
- Demonstrate competency in a limited set of the utilities (e.g. file management) provided by a contemporary operating system



Semester 1 (30 Credits)	
<i>All Mandatory</i>	
Programming	<i>10 credits</i>
Computer Networks	<i>5 credits</i>
Web Development	<i>5 credits</i>
Computer Systems	<i>5 credits</i>
Database	<i>5 credits</i>

Computer Networks

- Use network protocol models to explain the layers of communications in data networks
- Describe in detail the major components, operation and functionality of a computer network and commonly used protocols and services.
- Design, calculate and apply subnet masks and addresses
- Build a simple Ethernet network using routers and switches
- Use Cisco CLI to perform basic router and switch configuration
- Analyse the operations and features of network protocols and services using protocol inspection software.
- Implement a basic wireless network
- Describe basic computer and network security concepts.



Semester 1 (30 Credits)

All Mandatory

Programming

10 credits

Computer Networks

5 credits

Web Development

5 credits

Computer Systems

5 credits

Database

5 credits

Developer Operations

- Build, configure and manage essential network infrastructure services.
- Build, configure and manage essential application services.
- Deploy a network monitoring solution.
- Develop scripts to assist in the management and automation of modern network services.
- Configure appropriate security mechanisms, including firewall rules, encrypted services, and authentication.



Semester 2 (30 credits)

Specialisms (select 2)

Mandatory

Project/Summer School

5 credits

Developer Operations

5 credits

Mobile App Development

10 credits

Enterprise Service Development

10 credits

Security & Forensics

10 credits

Summer School

- 3 days per week
- Mostly Practical
- Located in Cariganore / TSSG



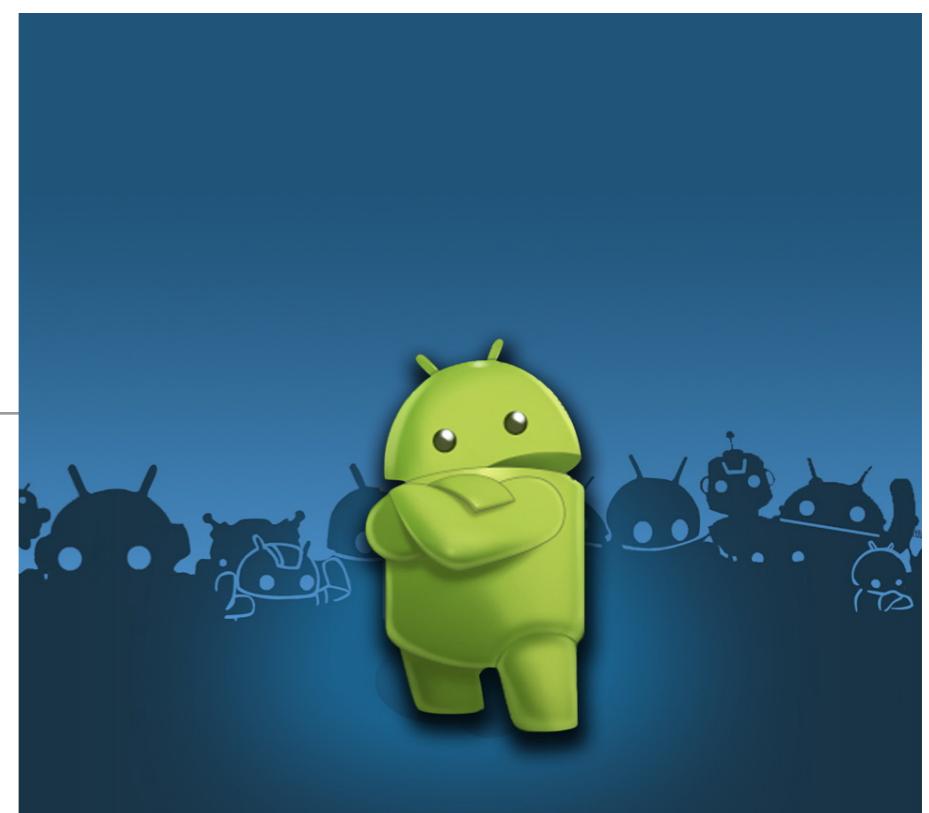
- Focus on integrating Web Development + Programming modules

12	23	24	25	26	27	28	29
May	study-period	30	1	2	3	4	5
	exam-period	7	8	9	10	11	12
		14	15	16	17	18	19
June	Summer School	21	22	23	24	25	26
		28	29	30	31	1	2
		4	5	6	7	8	9
		11	12	13	14	15	16
							17

- Weekly tech talks from Industrial Partners
- Assessed via a single project - submitted by end of August.

Mobile App Development

- Generalise competency in mobile application development across a number of different platforms
- Understand the difference between web app and native app development
- Understand the benefits of mobile applications at both technical and business levels and identifies applications that are best suited for mobile devices
- Assess an application from the user experience perspective, and incorporate best practice into an application's design.
- Demonstrate competency with programming tools used to create mobile app
- Deploy a native app to its targeted platform



Semester 2 (30 credits)

Specialisms (select 2)	
Mobile App Development	10 credits
Enterprise Service Development	10 credits
Developer Operations	5 credits
Security & Forensics	10 credits

Enterprise Service Development

- Comprehend the architecture of multi-layered, service-oriented, distributed enterprise applications and the disadvantages associated with traditional approaches to accessing infrastructure services.
- Comprehend the key concepts and techniques underpinning lightweight enterprise application frameworks (e.g. REST, IOC, Declarative service binding) and how they benefit application architecture – coupling, modularity, testability, and simplicity.
- Demonstrate the above in a best-of-breed containers and comprehend the full extent of their power in the management and configuration of an application's components, including life cycle management, externalising deployment configuration, and event management.
- Extend a medium-scale application that utilizes the frameworks under study.



Semester 2 (30 credits)	
<i>Mandatory</i>	<i>Specialisms (select 2)</i>
	Mobile App Development <i>10 credits</i>
Project/Summer School <i>5 credits</i>	Enterprise Service Development <i>10 credits</i>
Developer Operations <i>5 credits</i>	Security & Forensics <i>10 credits</i>

Security & Forensics

- Recognise and describe the various security threats and attack methods to which an organisation may be susceptible.
- Demonstrate practical knowledge of major security technologies.
- Appraise the role of cryptography in computer security, including its benefits and limitations.
- Demonstrate the use of commercial encryption software for secrecy of data and authentication purposes.
- Evaluate the specific security concerns pertinent when developing web applications.
- Describe the issues involved in applying security measures when developing code.
- Use forensic tools to analyse a file system and recover deleted data



Semester 2 (30 credits)	
<i>Mandatory</i>	<i>Specialisms (select 2)</i>
Project/Summer School <i>5 credits</i>	Mobile App Development <i>10 credits</i>
Developer Operations <i>5 credits</i>	Enterprise Service Development <i>10 credits</i>
	Security & Forensics <i>10 credits</i>



Home



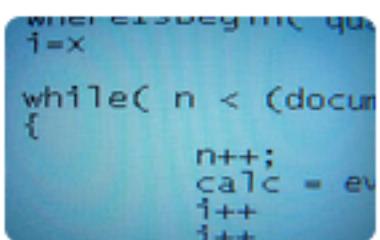
Database



Computer Networks



Web Development



Programming

Moodle

- We are using an experimental version of the e-Learning system Moodle: <http://edge.moodle.wit.ie>
- All Course Material for each model posted here in individual module sites
- Additionally, there is a “Home” module, which contains general information, schedules, handbooks + assignment upload facilities



Home

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Welcome

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Welcome to the ICT Skills Higher Diploma 2015/6 Resource Module. Here we collect general information on the course into a single area, including timetable, calendars, assessment information, course handbook and general career advice.

The most active section will be the 'Work Placement' topic - which will be populated with relevant and timely information as the course proceeds.

[induction-2016](#)

NEXT SECTION
[Timetable](#) ➤

Assignments

Jump to...

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Home

Dashboard / HDip in Computer Science 2017 / home2017 / Timetable



	1	2	3	4	5	reading-week	6	7	8	9	10	11	easter-break	12	study-break	Exam period	Final CA
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Web Development	A4																A5
Database									A6								exam
Computer Systems	A7																exam
Computer Networks	A8																exam

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Private files

No files available

Manage private files...

Timetable

▲ PREVIOUS SECTION

Semester 1

		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
9:15 a.m.		Programming	Web Development	Computer Networks	Computer Networks	Computer Networks		
10:15 a.m.								
11:15 a.m.		Dr. Siobhan Drohan	Eamonn de Leastar	Lucy White	Caroline O'Farrell			
12:15 p.m.								
1:15 p.m.			LUNCH	LUNCH				
2:15 p.m.			Programming	Programming				
3:15 p.m.			Dr. Siobhan Drohan	Dr. Siobhan Drohan				
4:15 p.m.								

		S	M	T	W	T	F	S
January	Week	1	15	16	17	18	19	20
		2	22	23	24	25	26	27
		3	29	30	31	1	2	3
February		4	5	6	7	8	9	10
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		8	12	13	14	15	16	17
		9	19	20	21	22	23	24
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		11	2	3	4	5	6	7
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		12	23	24	25	26	27	28
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		14	15	16	17	18	19	20
		21	22	23	24	25	26	27
		28	29	30	31	1	2	3
June	Summer School	4	5	6	7	8	9	10
		11	12	13	14	15	16	17

Individual Modules (Examples)

Weekly Topics (typically)

Lecture Slides & “Labs”

The diagram illustrates the relationship between weekly topics and lecture materials. A large arrow points from the text "Weekly Topics (typically)" to a screenshot of a course navigation interface. This interface shows a sidebar with "Table of contents", "Welcome", "Classes & Objects" (which is highlighted), "Administration", and "Navigation". The main content area is titled "Programming" and displays a section titled "Classes & Objects" (marked as "Current Section"). Below this are four cards: 1) "Overview" featuring a BlueJ logo and a brief introduction. 2) "Classes and objects" featuring a cartoon graduation cap and a box, with a note about continuing exploration of classes and objects. 3) "Classes-objects" featuring a screenshot of the BlueJ IDE showing a class hierarchy. 4) "Class-components" featuring a geometric diagram of a cone and a circle.

Programming

Classes & Objects Current Section

Overview

BlueJ

Brief overview of course content with an introduction to BlueJ (IDE) and a preliminary discussion of classes and objects.

Classes and objects

We continue exploration of classes and objects and introduce methods, parameters data types and access modifiers.

Classes-objects

Class-components

Here you will be introduced to Java source code and acquire practice in the use of methods and parameter passing. The state of an object will be explored. You will write code to solve simple problems related to geometric shapes such as a circle and right circular cone, for example calculating the area and perimeter of the circle and the volume of the cone.

34

Lecture Slides

- usually PDF

b-html-page-structure.key - b-h... edeleastar.github.io/web-development/topic01/pdf/b-html-page-structure.pdf Page: 14 of 35 Automatic Zoom 13

Linking

```
graph TD; lounge[lounge] --> about[about]; lounge --> beverages[beverages]; lounge --> images[images]; about --> directions_html["directions.html"]; beverages --> elixir_html["elixir.html"]; images --> drinks_gif["drinks.gif"]; images --> green_jpg["green.jpg"]; images --> blue_jpg["blue.jpg"]; images --> red_jpg["red.jpg"]; images --> lightblue_jpg["lightblue.jpg"]
```

Our root folder is still the "lounge" folder.

We're going to leave the main "lounge.html" page in the "lounge" folder.

Let's create a folder to hold pages about the lounge, like the directions. We could also add new pages here about the management, events, and so on.

We'll also create a folder to hold pages about the lounge's beverages. Right now that's just the elixirs, but we'll be adding more soon.

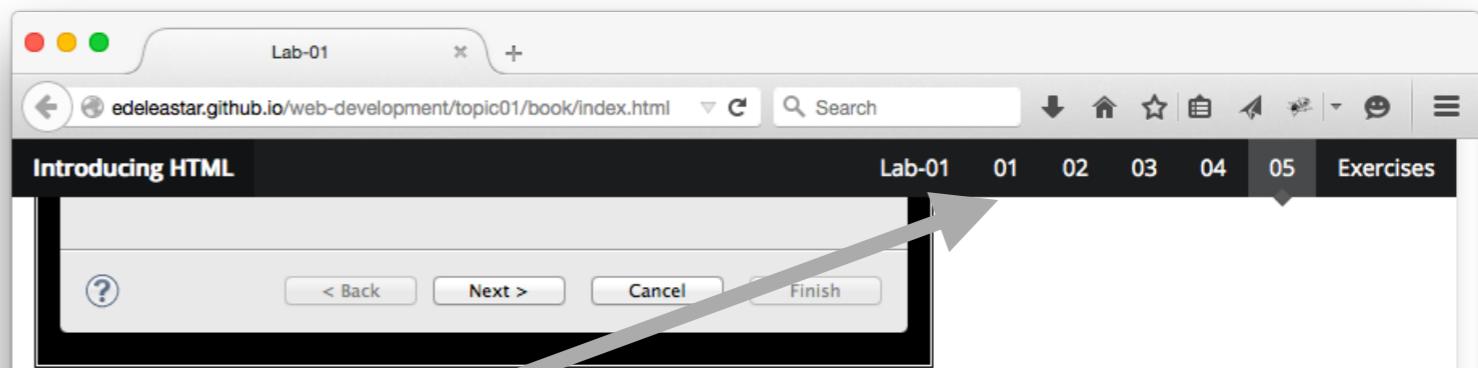
And, let's group all images into one folder.

Links: Absolute vs Relative

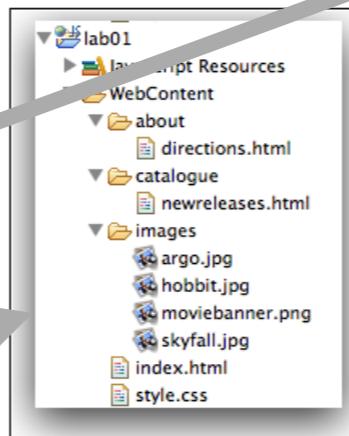
- **Absolute**
 - Complete path to a file on the hard disk: e.g:
 - /webdevlabs/lab02/imagesstatoo.jpg
 - /webdevlabs/lab01/mydvds.html
- **Relative:**
 - Trace route from "current position" to the destination

A Lab

Steps
Screen images
Code Fragments (can copy/paste from here into your code editors)



Call it 'style.css'. The workspace should look like this:



We bind this file into the project by 'linking' it to our home page. This must be incorporated into the <head> element of each page. Currently index.html head section looks like this:

```
<head>
  <title>My DVD Shop</title>
</head>
```

We can extend it with a new element to link to the stylesheet:

```
<head>
  <title>My DVD Shop</title>
  <link type="text/css" rel="stylesheet" href="style.css" media="screen" />
</head>
```

There is no visible effect on our page yet until we introduce a rule into the stylesheet.

Try this one:

```
p
{
  color: maroon;
}
```

Staying in Eclipse, you should be able to reload the page in the internal browser, and observe the change in the colour of the text:



E-Learning Team - <http://elearning.wit.ie/>

The screenshot shows the homepage of the Centre for Technology Enhanced Learning at WIT. At the top, there's a navigation bar with links for Home, Support, Blog, Projects, Workshops, About Us, and Moodle. The Waterford Institute of Technology logo is also present. A large banner image features a woman looking thoughtfully to the side. Below the banner, a section titled "Enhancing Teaching & Learning in WIT" is displayed. The main content area includes text about the Centre's commitment to enhancing learning experience, support resources, and upcoming events. A "FEATURED PROJECT" section highlights "Transformation Through Collaboration". The "FROM THE BLOG" section contains an article about Moodle's interface. A "POPULAR SUPPORT ARTICLES" sidebar lists topics like recycling work, plagiarism, and Moodle extensions. An "UPCOMING WORKSHOPS" sidebar provides details on booking workshops.

Centre for
Technology
Enhanced
Learning

Home Support Blog Projects Workshops About Us Moodle

Waterford Institute of Technology
INSTITIUTU TECHNOLOAICHTA PHORT LAIGE

Enhancing Teaching & Learning in WIT

The Centre for Technology-Enhanced Learning is committed to enhancing your learning experience within WIT.

Browse our selection of support resources, answers to Frequently Asked Questions and forthcoming Technology-Enhanced Learning related workshops and events for WIT staff.

The Centre for Technology-Enhanced Learning is responsible for the WIT Virtual Learning Environment, including Moodle, providing training and support.

Find out more About the team, contact us or call in to our helpdesk to share some feedback, experiences or investigate the newest trends in eLearning.

FEATURED PROJECT

Transformation Through Collaboration

At the core of the project is the recruitment of staff as Digital Champions ... These staff will become champions for the improvement of digital literacy skills within their academic discipline ... ultimately across the Southern Cluster.

Read more ...

FROM THE BLOG

Not just a pretty Moodle [inter] face: a brief explanation

Why develop an interface for Moodle? My academic background is Second Language Acquisition (SLA). Over the years, I have come to realise that this experience has informed not just my students' language learning processes and the teaching decisions I have made, but also learning in general; I believe this extends to the world of learning online – note the word order in the last sentence: 'learning' comes first, before 'online'.

[Continue reading »](#)

POPULAR SUPPORT ARTICLES

- Is Recycling Your Own Work Plagiarism?
- How can I grant an extension to one or more of my students in a Moodle assignment?
- How do I edit my profile in Moodle?
- My Turnitin score is still pending. How can I fix this problem?
- Turnitin to End Support for Internet Explorer 8 in July 2014

UPCOMING WORKSHOPS

Browse and sign up for Technology-Enhanced Learning related workshops and events available to all WIT staff. Booking your place on a workshop is easy. All you need to do is decide which workshops you would like to attend, we take care of the rest!

[View the Workshop schedule »](#)

- For any issues with registration/usage - email edeleastar@wit.ie first
- e-Learning team also happy to help and advise.
- Located just inside main door of FTG block.
- Feel free to drop in there as well

Conclusion: Turn on System 2 Cognitive Processing!

System 1	System 2
Unconscious reasoning	Conscious reasoning
Implicit	Explicit
Automatic	Controlled
Low Effort	High Effort
Large capacity	Small capacity
Rapid	Slow
Default Process	Inhibitory
Associative	Rule based
Contextualized	Abstract
Domain Specific	Domain General
Evolutionarily Old	Evolutionarily recent
Nonverbal	Linked to language
Includes recognition, perception, orientation	Includes rule following, comparisons, weighing of options
Modular Cognition	Fluid Intelligence
Independent of working memory	Limited by working memory capacity
Non-Logical	Logical
Parallel	Serial

THE NEW YORK TIMES BESTSELLER

THINKING,
FAST AND SLOW



DANIEL
KAHNEMAN

WINNER OF THE NOBEL PRIZE IN ECONOMICS

"[A] masterpiece . . . This is one of the greatest and most engaging collections of insights into the human mind I have read." —WILLIAM EASTERLY, *Financial Times*



Learn Git + Github!

- Sign up for an account on github.com as soon as possible
- Formal instruction on git wont commence until Summer School
- However, register early to establish a ‘member since’ record...

The screenshot shows the GitHub sign-up process. At the top, there's a large banner with the text "How people build software" and a subtext about millions of developers using GitHub for various projects. Below this is a form for creating a new account, including fields for "Pick a username", "Your email address", and "Create a password". A note below the password field specifies a minimum length of "Use at least one letter, one numeral, and seven characters". A prominent green "Sign up for GitHub" button is at the bottom of the form. Below the form, a welcome message reads "Welcome home, developers" followed by a description of GitHub's collaborative development process. At the bottom, there are four cards illustrating GitHub's features: "For everything you build" (hosting code), "A better way to work" (team collaboration), "Millions of projects" (open source projects), and "One platform, from start to finish" (integrations).

<http://product.hubspot.com/blog/git-and-github-tutorial-for-beginners>

Good Luck!