



Institiúid Teicneolaíochta Chorcaí  
Cork Institute of Technology

## COMP6015: Interface Programming

### Module Details

<b>Short Title:</b>	Interface Programming			APPROVED
<b>Full Title:</b>	Interface Programming			
<b>Module Id:</b>	2316			
<b>Official Code:</b>	COMP6015		<b>NFQ Level:</b>	6
			<b>ECTS Credits:</b>	5
<b>Coordinator:</b>	JOSEPH CONNELL			
<b>Description:</b>	This module is intended to introduce the student to the high-level computer programming techniques required in the development of microprocessor-based systems.			
<b>Learning Outcomes:</b>				
On successful completion of this module the learner will be able to...				
1. Apply abstract data structures when representing real-world engineering scenarios 2. Implement common sorting and searching algorithms 3. Develop GUI based programs using suitable programming environment(s) 4. Store/display information in a form suitable for engineering applications 5. Use a computer to interact with other electronic devices				
<b>Pre-requisite learning</b>				
<b>Module Recommendations</b> <i>This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named CIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).</i>				
No recommendations listed				
<b>Incompatible Modules</b> <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module. You may not earn additional credit for the same learning and therefore you may not enrol in this module if you have successfully completed any modules in the incompatible list.</i>				
No incompatible modules listed				
<b>Module Requirements</b> <i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. You may not enrol on this module if you have not acquired the learning specified in this section.</i>				
No requirements listed				



## Module Content &amp; Assessment

## Indicative Content

- **User-defined data type**  
Application to stacks and queues.
- **Sorting and searching algorithms**  
Sequential, binary searches, selection and insertion sorts.
- **User interface design**  
Text box, listbox, buttons, check box manipulation.
- **Storage/retrieval and display of data**  
File access, various graphical charts.
- **Serial /parallel interfacing**  
Programmatic manipulation of typical communication port(s).

## Assessment Breakdown

	%
Course Work	100%
End of Semester Formal Examination	0%

## Coursework Breakdown

Type	Description	Outcome addressed	% of total	Assessment Date
Non-CIT Exam	Data type/algorithm implementation	1,2,3	30	Week 5
Project	Algorithm implementation	1,2,3	20	Week 7
Project	Embedded system design/implementation	1,2,3,4,5	25	Week 10
Non-CIT Exam	Typical embedded engineering	1,2,3,4,5	25	Week 12

**The institute reserves the right to alter the nature and timings of assessment**



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### Module Workload & Resources

Workload		Full-time mode		
Type	Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	No Description	2	Every Week	2.00
Lab	No Description	2	Every Week	2.00
Independent & Directed Learning (Non-contact)	No Description	3	Every Week	3.00
Total Weekly Learner Workload				7.00
Total Weekly Contact Hours				4.00

Workload		Part-time mode		
Type	Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	No Description	2	Every Week	2.00
Lab	No Description	1	Every Week	1.00
Independent & Directed Learning (Non-contact)	No Description	4	Every Week	4.00
Total Weekly Learner Workload				7.00

### Resources

#### Recommended Book Resources

- **CIT, Lecture Notes**
- **Vincent Himpe 2006, Visual Basic for electronic engineering applications : 5.0, 6.0, Vba, .Net, 2005, Elektor Electronics Publishing Netherlands [ISBN: 0905705688]**