



<b>Title:</b>	Script Programming <b>APPROVED</b>	
<b>Long Title:</b>	Practical computing using a scripting language	
<b>Module Code:</b>	COMP7014	<b>Duration:</b> 1 Semester
<b>Credits:</b>	5	
<b>NFQ Level:</b>	Intermediate	
<b>Field of Study:</b>	Computer Science	
<b>Valid From:</b>	Semester 1 - 2012/13 ( September 2012 )	
<b>Module Delivered in</b>	no programmes	
<b>Module Coordinator:</b>	Sean McSweeney	
<b>Module Author:</b>	PAUL ROTHWELL	
<b>Module Description:</b>	Students use a popular scripting language (e.g. perl, python, php) to accomplish practical tasks: e.g. processing large quantities of text, extracting information from a database, linking a web server to a database so the information in the database is available to users through a web browser, communication between scripts over a network, and more. Finally, students perform a survey of other scripting languages.	
<b>Learning Outcomes</b>		
<i>On successful completion of this module the learner will be able to:</i>		
LO1	Encode an algorithm as a script.	
LO2	Integrate existing software tools through the use of a scripting language.	
LO3	Reuse existing modules in the script language.	
LO4	Evaluate scripting languages' appropriateness for a particular task.	
<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>		
103	SOFT6005	Programming Fundamentals I
358	SOFT6006	Programming Fundamentals II
<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>Co-requisite Modules</b>		
No Co-requisite modules listed		
<b>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 & Assessment**

**Indicative Content**

**Introduction**

Overview, Resources, Sample Script

**Language Basics**

File handles, operators, control structures, simple regular expressions, data type & structures, list processing

**More Complex Topics**

Regular expressions, subroutines, object programming, modules

**Practical Scripting**

Applications in various areas e.g. Database access, CGI programming, network communications, GUI.

**Overview of other scripting languages**

e.g. Perl, Python, Rexx, PHP, Ruby, Javacript, VBscript, Tcl

**Assessment Breakdown**

	%
Course Work	100.00%

**Course Work**

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	On-going assessment of lab work	1,2,3	40.0	Week 8
Project	Write a complex server-side script combining tools and techniques learned throughout the semester	1,2,3	40.0	Week 10
Written Report	Write a survey of scripting languages, their primary uses and their strengths and weaknesses	4	20.0	Week 11

No End of Module Formal Examination

**Reassessment Requirement**

**Coursework Only**

*This module is reassessed solely on the basis of re-submitted coursework. There is no repeat written examination.*

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

**Module Workload**

<b>Workload: Full Time</b>				
<i>Workload Type</i>	<i>Workload Description</i>	<i>Hours</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	Lecture	1.0	Every Week	1.00
Lab	Lab	3.0	Every Week	3.00
Independent & Directed Learning (Non-contact)	Independent & directed learning	3.0	Every Week	3.00
Total Hours				7.00
Total Weekly Learner Workload				7.00
Total Weekly Contact Hours				4.00

<b>Workload: Part Time</b>				
<i>Workload Type</i>	<i>Workload Description</i>	<i>Hours</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	Lecture	1.0	Every Second Week	0.50
Lab	Lab	3.0	Every Week	3.00
Independent & Directed Learning (Non-contact)	Independent & directed learning	3.0	Every Week	3.00
Total Hours				7.00
Total Weekly Learner Workload				6.50
Total Weekly Contact Hours				3.50

## Module Resources

### Supplementary Book Resources

- Larry Wall, Tom Christiansen, Jon Orwant 2000, *Programming Perl*, Third Edition Ed., O'Reilly Media [ISBN: 9780596000271]
- Tom Christiansen, Nathan Torkington 2003, *Perl Cookbook*, Second Edition Ed., O'Reilly Media [ISBN: 9780596003135]
- Mark Lutz, 2011, *Programming Python*, 4th Ed., O'Reilly Media [ISBN: 978-0596158101]

*This module does not have any article/paper resources*

### Other Resources

- website: *The Source for Perl*  
<http://www.perl.com>
- website: *The Perl Directory*  
<http://www.perl.org>
- website: *Official website for Python*  
<http://www.python.org/>

