

Module Guide

CPS Programme *Academic Year 2008/2009*

Module:	Introduction to Open Source Technologies CPS
Web-site:	http://copsewood.net/tic
Centre:	Computing, Telecommunications and Networks
Module Co-ordinator:	Richard Kay
Lecturers:	Richard Kay
Laboratory Tutors:	Richard Kay
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Brief Descriptions of the Items of Assessment: You will be expected to complete ALL Assessments.	<ol style="list-style-type: none"> 1. Investigate and study a major open source development project management transition or fork or license change and submit a report.] 2. Written and practical test covering Linux command lines, installation methods, process control, filters, and shell scripting] <p>Information is for guidance only. See ECMS My Course on the intranet for details.</p>
Assessment Weighting:	See ECMS My Course on the intranet for details
<p>Individual assignments. The work you submit shall be your own and not the product of collaboration with anyone else. Plagiarism will be penalised.</p> <p>In-course assessments shall be submitted through the Coursework Collection System, to the module co-ordinator.</p>	

Syllabus and supporting information

Indicative content

OS Development methodologies

OS licenses, software freedom principles, cathedral and bazaar development styles, agile programming, test-driven development, case study of community interactions and norms concerning a significant OS development e.g. the Linux kernel. Factors favouring or excluding open-source development for specific projects.

Linux, Shell commands, scripting and configuration management

Use of command lines as a test-driven approach for exploration of system internals. Shell scripting and package installation/removal using rpm or apt. Use of system manual and package configuration using /etc registry, dpkg and GUI tools.

Learning Outcomes

On completion of the module, the student should be able to:

1. Understand how the OS community operates and to obtain and provide support for OS products.
2. Have a working knowledge of OS licenses, community norms, development and support processes.
3. Use simple Linux command lines to explore and modify application configurations and create simple scripts.
4. Use Linux command lines, manual pages and GUI tools to install and remove applications and manage package configurations.

Recommended Texts

- Cameron Newham, Bill Rosenblatt, Learning the Bash Shell, 3e, O'Reilly.
- Goldman and Gabriel (2005), Innovation Happens Elsewhere: Open Source as Business Strategy, Morgan Kaufmann.
- Others: as advised during module.

Teaching Schedule for: **Introduction to Open Source Technologies CPS**

Wk No	Date (Mon)	Lecturer	Lecture Topic	Tutorial / Lab Topic	Assignment	
					Set	Due In
31	08-June-09	RK	The Open Source community and licenses	Linux command lines and text editors	A1	
32	15-June-09	RK	Managed and collaborative development	Pipes and filters		
33	22-June-09	RK	Linux kernel development process	Shell scripting		
34	29-June-09	RK	Installation and package management	Process control and environment		
35	06-July-09	RK	Linux user and security administration	Adding users, file permissions		
36	13-July-09	RK	'C' and Python programming on Linux	Practical/written test	A2	A2
37	20-July-09					
38	27-July-09					A1

* Assignment Set and Due week indication above is for guidance only. See ECMS My Course on the intranet for details.