



University of Nicosia, Cyprus

<b>Course Code</b> COMP-114	<b>Course Title</b> Software Development Lab II	<b>ECTS Credits</b> 2
<b>Department</b> Computer Science	<b>Semester</b> Fall, Spring	<b>Prerequisites</b> None
<b>Type of Course</b> Required	<b>Field</b> Computer Science	<b>Language of Instruction</b> English
<b>Level of Course</b> 1 <sup>st</sup> Cycle	<b>Year of Study</b> 1 <sup>st</sup>	<b>Lecturer(s)</b> Dr Harald Gjermundrød
<b>Mode of Delivery</b> Face-to-face	<b>Work Placement</b> N/A	<b>Co-requisites</b> COMP-113

**Objectives of the Course:**

The main objectives of the course are to:

- introduce and provide experience in using tools for source code version management
- familiarize students with tools for software bug tracking in order to gain experience in using such tools.
- cover in details the full life-cycle of software development: commit code, test and submit bug reports, provide patches and patch the source code
- introduce and use tools for builds and installers for various platforms.

**Learning Outcomes:**

After completion of the course students are expected to be able to:

1. use source code version management tools
2. use bug-tracking tools for application development
3. apply the full cycle of software (source code) development
4. create builds and installers for a software product.

**Course Contents:**

1. Introduction to source code version management tools, like CVS or SVN
2. How to create, check-in, check-out, source code from a version management tool and compare different source code versions
3. Introduction to source code bug tracking tools, like bugzilla
4. How to report bugs, report feature requests, accept bug reports, browse current reports and amend them
5. How to create patches (using the development environment), attach them to current bug reports (using the bug tracking tool), apply and verify patches, and check in the patched code (using the version management tool)
6. Introduction to build and release systems
7. How to tag a version (using version management tool), use a build tool to create binaries for various platforms like, Mac OS X, GNU/Linux, and MS Windows
8. How to wrap up the builds and encapsulate them into installers.

**Learning Activities and Teaching Methods:**

Lectures, Lab Presentations, Lab Tutorials, Practical Exercises and Assignments.
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**Assessment Methods:**

Homework, Projects.
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**Required Textbooks/Reading:**

Authors	Title	Publisher	Year	ISBN
Gary J. Bronson	Program Development and Design using C++	Thomson Course Technology	2006	0-619-21677-8

**Recommended Textbooks/Reading:**

Authors	Title	Publisher	Year	ISBN
Matthew B. Doar	Practical Development Environments	O'Reilly Media	2005	0-596-007965
C. Michael Pilato, Ben Collins-Sussman, Brian W. Fitzpatrick	Version Control with Subversion, 2 <sup>nd</sup> Edition	O'Reilly Media	2008	0-596-51033-6