


QFO-AP-FI-MO02	اسم النموذج: Course Syllabus	جامعة فيلادلفيا
رقم الاصدار : 1 (Revision)	الجهة المصدرة: كلية تكنولوجيا المعلومات	
التاريخ: 2017/11/05	الجهة المدققة: عمادة التطوير والجودة	Philadelphia University
عدد صفحات النموذج:		

Course Syllabus	
Course Title: Software Production	Course code: 721330
Course Level: 3	Course prerequisite(s) and/or Co-requisite(s): 721221
Lecture Time:	Credit hours: 3

Academic Staff Specifics				
Name	Rank	Office Location	Office Hours	E-mail Address

Course module description

This course covers the following topics related to Software Process Management discipline:

- Definition, management, modeling, assessment and improvement of software processes.
- Description of commonly used software life cycle process models and the content of institutional process standards,
- Use of a defined process to perform the technical and managerial activities needed for software development and maintenance.

Course module objectives

This course aims to provide students with knowledge and skills for designing, creating, analysing and applying software development processes.

Course/ module components

Books (title, author (s), publisher, year of publication)

Software Process Definition and Management, J. Munch et al, Springer Verlag Berlin Heidelberg, 2012

Support material (s) (vcs, acs, etc): Textbook Slides

Teaching methods

Lectures, tutorials, and laboratory sessions

Duration: 16 weeks, 48 hours in total. Lectures: 25 hours, Tutorials: 20 hours, Laboratories: 2hours

The last week is reserved to project examination.

Learning outcomes

A student completing this module unit should be able to:

- **Knowledge and understanding**
 1. Understand the importance of software Processes for managing large-scale software projects. (A1)
 2. Be aware of process management activities in software related organisations (A1)
 3. Understand and explain the core concepts related to software process management discipline (A1, A2)

4. Become familiar with industrial software processes and process standards (A1, A2)

- **Cognitive skills (thinking and analysis).**

5. Select and apply a software process model appropriate for a specific software project (B4, B5)
6. Assess a simple software process (B6)
7. Model a simple software process model (B1)
8. Analyse software process behaviours (B6)

- **Practical skills**

9. Simulate and Deploy simple process model (C2, C3)
10. Prepare and deliver coherent and structured verbal and written technical report. (C7)
11. Use the scientific literature effectively. (C8)

- **Transferable skills**

12. Solve Problems (D3)
13. Work as a part of a team D6)
14. Manage time, tasks, resources (D7)

Assessment of Learning Outcomes

Learning outcomes (A1, A2, B1, B6, and D3) are assessed by written examinations, quizzes and assignments. Learning outcomes (B4, B5, C7, C8, D6 and D7) are assessed by projects and assignments. Learning outcomes (C2, C3) are assessed by projects and laboratory sessions.

Assessment instruments

- Short reports and/ or presentations, and/ or Short research projects: *not applicable*
- Quizzes. *During all the semester*
- Homework: *during all the semester*
- Final examination: 40 marks

<u>Allocation of Marks</u>	
Assessment Instruments	Mark
First examination	20
Second examination	20
Final examination: 40 marks	40
Project, Quizzes, Home work	20
Total	100

Documentation and academic honesty

Submit your homework covered with a sheet containing your name, number, course title and number, and type and number of the home work (e.g. tutorial, assignment, and project).

Any completed homework must be handed in to my office (room IT 327) by 15:00 on the due date. After the deadline “zero” will be awarded. You must keep a duplicate copy of your work because it may be needed while the original is being marked.

You should hand in with your assignments:

- 1- A printed listing of your test programs (if any).
- 2- A brief report to explain your findings.
- 3- Your solution of questions.

For the research report, you are required to write a report similar to a research paper. It should include:

1. **Abstract:** It describes the main synopsis of your paper.
2. **Introduction:** It provides background information necessary to understand the research and getting readers interested in your subject. The introduction is where you put your problem in context and is likely where the bulk of your sources will appear.
3. **Methods (Algorithms and Implementation):** Describe your methods here. Summarize the algorithms generally, highlight features relevant to your project, and refer readers to your references for further details.
4. **Results and Discussion (Benchmarking and Analysis):** This section is the most important part of your paper. It is here that you demonstrate the work you have accomplished on this project and explain its significance. The quality of your analysis will impact your final grade more than any other component on the paper. You should therefore plan to spend the bulk of your project time not just gathering data, but determining what it ultimately means and deciding how best to showcase these findings.
5. **Conclusion:** The conclusion should give your reader the points to “take home” from your paper. It should state clearly what your results demonstrate about the problem you were tackling in the paper. It should also generalize your findings, putting them into a useful context that can be built upon. All generalizations should be supported by your data, however; the discussion should prove these points, so that when the reader gets to the conclusion, the statements are logical and seem self-evident.
6. **Bibliography:** Refer to any reference that you used in your assignment. Citations in the body of the paper should refer to a bibliography at the end of the paper.

• **Protection by Copyright**

1. Coursework, laboratory exercises, reports, and essays submitted for assessment must be your own work, unless in the case of group projects a joint effort is expected and is indicated as such.
2. Use of quotations or data from the work of others is entirely acceptable, and is often very valuable provided that the source of the quotation or data is given. Failure to provide a source or put quotation marks around material that is taken from elsewhere gives the appearance that the comments are ostensibly your own. When quoting word-for-word from the work of another person quotation marks or indenting (setting the quotation in from the margin) must be used and the source of the quoted material must be acknowledged.
3. Sources of quotations used should be listed in full in a bibliography at the end of your piece of work.

• **Avoiding Plagiarism.**

1. Unacknowledged direct copying from the work of another person, or the close paraphrasing of somebody else's work, is called plagiarism and is a serious offence, equated with cheating in examinations. This applies to copying both from other students' work and from published sources such as books, reports or journal articles.
2. Paraphrasing, when the original statement is still identifiable and has no acknowledgement, is plagiarism. A close paraphrase of another person's work must have an acknowledgement to the source. It is not acceptable for you to put together unacknowledged passages from the same or from different sources linking these together with a few words or sentences of your own and changing a few words from the original text: this is regarded as over-dependence on other sources, which is a form of plagiarism.
3. Direct quotations from an earlier piece of your own work, if not attributed, suggest that your work is original, when in fact it is not. The direct copying of one's own writings qualifies as plagiarism if the fact that the work has been or is to be presented elsewhere is not acknowledged.
4. Plagiarism is a serious offence and will always result in imposition of a penalty. In deciding upon the penalty the Department will take into account factors such as the year of study, the extent and proportion of the work that has been plagiarized, and the apparent intent of the student. The penalties that can be imposed range from a minimum of a zero mark for the work (without allowing resubmission) through caution to disciplinary measures (such as suspension or expulsion).

Course/module academic calendar

week	Basic and support material to be covered	Homework/repts (due dates)
(1)	Introduction (chap 1 textbook), Tutorial	
(2)	Prescriptive Process Models (chap 2 textbook) Tutorial	
(3), (4)	Descriptive Process Models (chap 3 textbook) Tutorial First Exam	Homework (week 8)
(5), (6)	Process Modeling Notation and Tools (chap 4 textbook) Tutorial Second Exam	Project
(7), (8)	Process Improvement and Simulation (chap 5&7 textbook) Homework Examination Final exam	

Expected workload

On average students need to spend 2 hours of study and preparation for each 50-minute lecture/tutorial.

Attendance policy

Absence from lectures and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the relevant college/faculty shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.

Module references

Books

- Software Engineering, a Practitioner's Approach, R.S. Pressman. 7th edition, McGraw-Hill, 2010
- Object-Oriented Software Engineering Using UML, Patterns, and Java” B. Bruegge, A. H. Dutoit,, Second Edition, Prentice Hall, 2004.
- Agile Software Construction, John Hunt, Springer-Verlag 2006
- The Unified Software Development Process, The Complete guide to the Unified Process from the original designers, I. Jacobson, G. Booch, and J. Rumbaugh, Addison-Wesley, 1999
- Software Engineering Processes, Principles and applications, Y. Wang and G. King., CRC press, 2000.