

Course Syllabus  
219347 Workgroup Software Process  
219348 Workgroup Software Process Lab  
Aug - Dec 2015

### Course Description

This course covers software development processes and their application to small team projects. The emphasis is on learning the purpose and benefits of particular process areas and how to apply them. Some standard process models are also covered that illustrate a broad range of approaches.

### Course Objectives

The objectives of the course are:

1. Improve the success of your software projects by applying software process methods and practices.
2. Be able to choose or design a process for a software project to make a project more efficient, predictable, timely, and producing a high quality product that fulfills the client's requirements.
3. Understand the purpose of process elements and practices and how they affect project outcomes. Be able to apply process elements and practices.
4. Develop capacity for professional improvement by measuring and analyzing your own process, habits, and work products.

### Topics

- Introduction to Software Processes
- Why Software Projects Succeed or Fail
- Process Concepts and Elements
- Common Software Processes, such as Waterfall, Unified Process, and Agile processes
- Process areas, practices, and tools
- Comparison of software processes
- How to select an appropriate software process for a project

These topics will be described in more detail on the course LMS pages.

The emphasis is on learning the purpose and benefits of common software process areas and how to apply useful practices to an actual software project. That is, the components of a process (and how to apply them) rather than following any particular process model.

### Student Effort

- Study the assigned readings before class
- Do individual assignments and submit them on time
- Participate in a team software project
- Apply your team and individual process(es) to assigned work
- Record your effort accurately and consistently for all project work
- Submit individual activity reports (approx. every 2 weeks)

### Evaluation Criteria

1. How well you follow the process.
2. Participation in class, labs, and project work.
3. Accuracy, completeness, and quality of individual work, measurements, and activity reports.
4. Correctness of English in written work.

5. Evidence of consistent effort on project work.
6. Level of understanding as demonstrated on quizzes and exams.

### Grading Scale

1. You will receive the same grade for both the lecture and laboratory course.
2. You must demonstrate satisfactory understanding of the material on the midterm and final exams, with a minimum average score of 50%. Anyone earning less than 50% average on exams will receive a grade F.

3. Subject to the above, the *approximate* grading scale is

Overall score on evaluation materials	Grade
85 - 100%	A
75 - 85%	B
65 - 75%	C
55 - 65%	D
< 55%	F

### Out-of-Class Consultation

You are welcome to "drop by" my office any time I'm in *except* the morning before lecture, or make an appointment by email.

### References

<https://lms.ku.ac.th> - Weekly syllabus, assignments, and learning materials are posted here. This site will also be used for submission of some assignments. Students should enroll in "Workgroup Software Process" and complete a personal profile, including photograph that clearly shows your face.

<https://github.com> - Work products for team projects will be primarily managed on Github.

### Reading Material

Readings will be assigned from various books, articles, and the Internet. Notable sources are:

B. Boehm and R. Turner, *Balancing Agility and Discipline: A Guide for the Perplexed*. Addison-Wesley, 2004.

W. Humphrey, *Introduction to the Team Software Process*. Addison-Wesley, 2000.

M. Fowler, *UML Distilled*, 3rd Edn.

S. McConnell, *Rapid Development*. 1998

IBM, *Rational Unified Process*, online process descriptions, templates, and guidance.

IEEE, *Software Engineering Body of Knowledge (SWBOK)*, 2004 or newer. Overview of what IEEE considers essential knowledge (and capabilities) for software engineers.

### Instructor

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