

2110634 Software Design and Development

Course Syllabus

Code	2110634
Course Name	Software Design and Development
Credits	3(3-0-9)
Department	Computer Engineering
Semester	Second
Year	2555
Instructor	Chate Patanothai Room 19-04 Engineering Building 4 Phone: 0-2218-6989 Email: 2110634@gmail.com URL: http://www.cp.eng.chula.ac.th/~chate/2110634
Condition	-
Degree	Master of Science (Software Engineering)
Hours/Week	3 hours lecture
Section	1. Wed 09:00 – 12:00 5. Sat 09:00 – 12:00
Course Description	Design concept; quality, design, design principles, architecture design; detail design; integrated development environment

Evaluations

Assignment + Participation	20%
Midterm	20%
Final	30%
Project	30%

Textbook

n/a

References

- Larman, Craig. *Applying UML and Patterns*, 2nd edition. Addison-Wesley, 1998.
- Gomaa, Hassan. *Designing Software Product Lines with UML: From Use Cases to Pattern-Based Software Architecture*, Addison Wesley, 2004.
- Eric Freeman, Elisabeth Robson, Bert Bates, and Kathy Seirra. *Head First Design Patterns*. O'Reilly Media, 2004.
- Peter Eeles, and Peter Cripps, *The Process of Software Architecting*. Addison Wesley, 2010.
- Hans Erik Eriksson and Magnus Penker. *Business Modeling with UML: Business Patterns at Work*. Addison Wesley, 2004.
- Andy Oram and Greg Wilson. *Beautiful Code*. O'Reilly, 2007.
- Robert C. Martin. *Clean Code: A Handbook of Agile Software Craftsmanship*. Prentice Hall, 2009.

Class Schedule

Week	Topics*
1	Introduction Software Design Fundamental
2	Software Design Notations: Structural
3	Software Design Notations: Behavioral
4	Streamlined Object Modeling
5	Mapping Design to Code
6	Models, Subsystems, Packages
7	Review
8	--- Midterm Week ---
9	Software Structure and Architecture
10	Design Patterns (1)
11	Design Patterns (2)
12	Frameworks (1)
13	Frameworks (2)
14	Paper Presentations
15	Project Presentations
16	Final Examination (Last day of class)

*The schedule may be changed as appropriate.