

SSE2034: System Software Experiment 3 Spring 2017

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Computer Systems Laboratory

Sungkyunkwan University

<http://csl.skku.edu>

Course Information

■ Schedule

- 18:00 ~ 22:00 (Tuesday)
- #400102 for lecture
- #400202 for lab

■ Course homepage

- <http://csl.skku.edu/SSE2034S17/Overview>
- Lecture slides, announcements, projects, etc.
- iCampus

■ Teaching assistant

- 이규선, lgs0409 AT naver DOT com
- 안민우, mwahn402 AT gmail DOT com
- #400509 in Semiconductor Bldg.

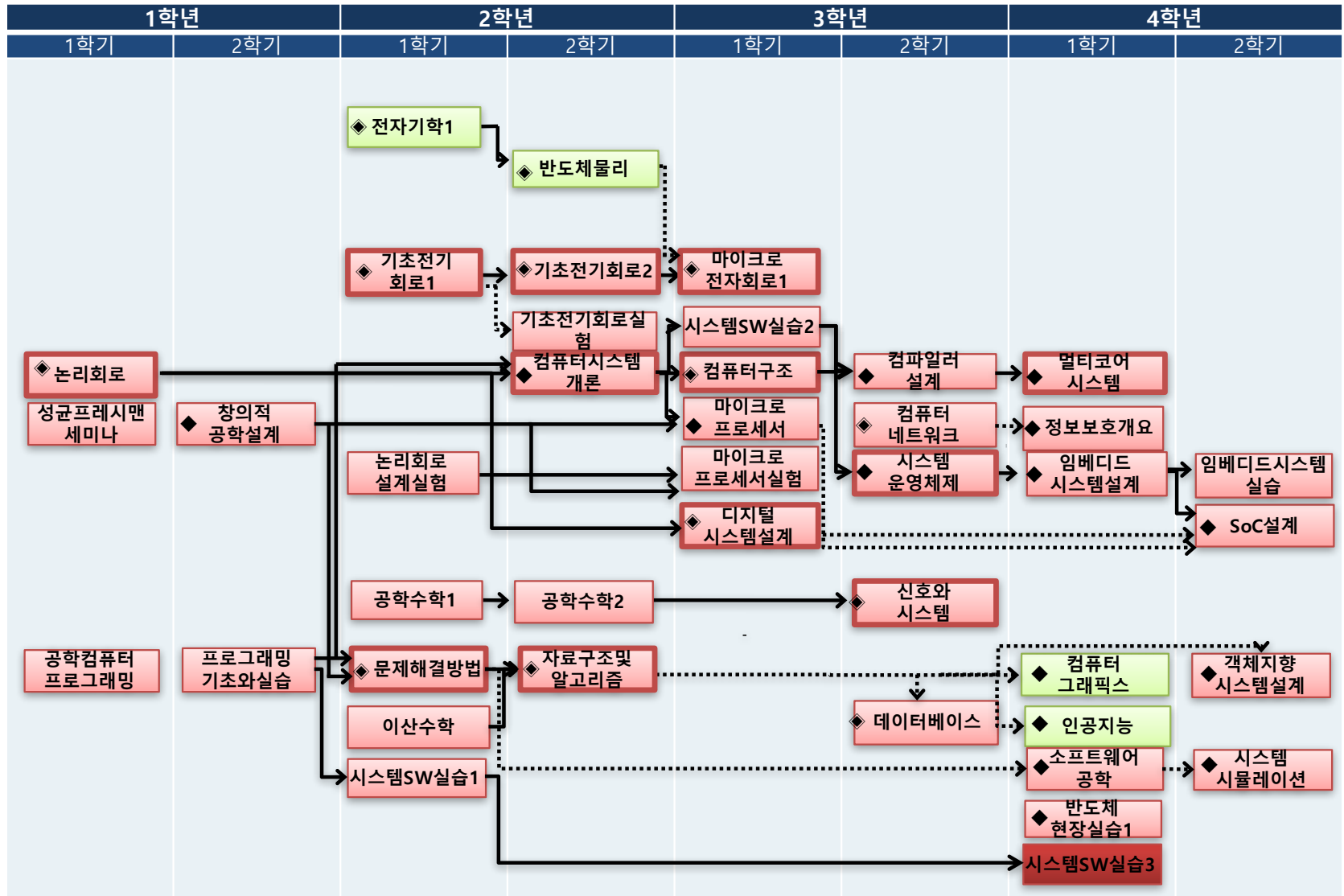
About Me

▪ Jinkyu Jeong

- Assistant professor @ SSE
- Computer Systems laboratory
- Office: Semiconductor bldg. #400626 (6th floor)

- Email: jinkyu@skku.edu
- URL: <http://csl.skku.edu/People/Jinkyu>
- Tel: 031-290-7692
- Office hours: 13:00~14:00 in Mon. & Wed.
- Email contact is preferred

System Software Track



Prerequisites

■ Prerequisite Courses

- Data structures and algorithms
- Programming practice and experience (the C language)

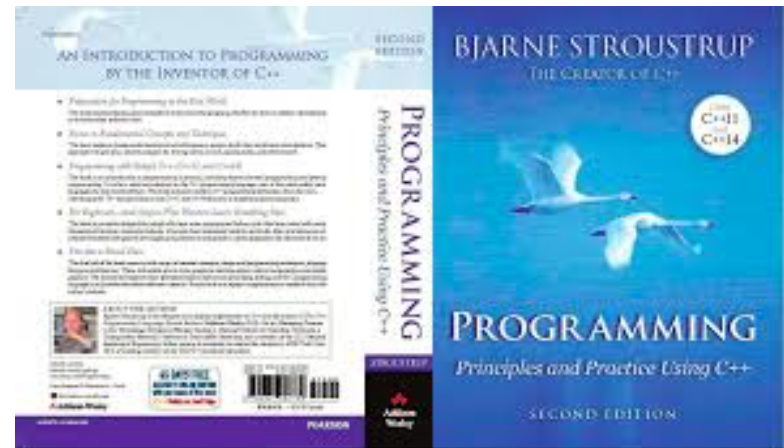
■ Programming Skills

- C, python, ...
- Programming in Linux environment (gcc, gdb, vi/emacs, ...)

Textbooks

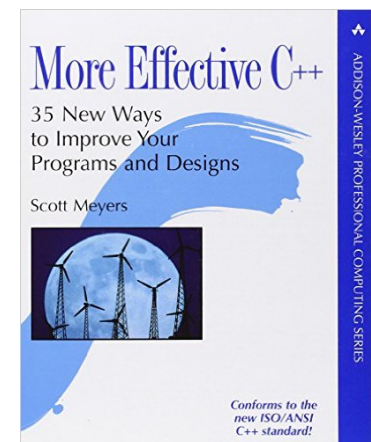
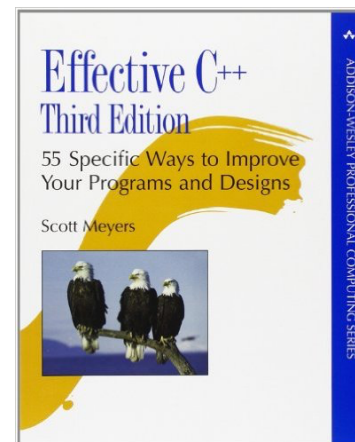
■ Main

- Programming: Principles and Practice Using C++, 2nd ed.
 - Bjarne Stroustrup
 - Addison-Wesley



■ References

- Effective C++, 3rd ed.
 - Scott Meyers
 - Addison-Wesley
- More Effective C++
 - Scott Meyers



This Course is about

■ The C++ programming language

- Object-oriented programming
- Extended from C
- New Standards: C++11, C++14
- GNU compiler
 - `$ g++ -std=c++11 -o hello main.cpp`
 - `$ g++ -std=c++14 -o hello main.cpp`
 - `$ g++ -std=c++1y -o hello main.cpp`

■ Command-line tools in Linux

- Bash scripting
- grep
- Makefile
- sed: **s**tream **e**ditor
- awk: script programming

IDE & Tutorials

■ Online IDEs for C++

- Tutorialspoint Online IDEs (www.tutorialspoint.com/codingground.htm)
- Goorm.io (www.goorm.io)
 - Create a C/C++ container

■ C++ tutorials

- Cplusplus.com (www.cplusplus.com/doc/tutorial/)
- LearnCpp.com (www.learncpp.com/)
- Tutorialspoint (www.tutorialspoint.com/cplusplus/)
- C++ youtube video
 - (www.youtube.com/watch?v=Rub-JsjMhWY)

Course Plan

- **Lecture + Lab**

- Lecture: ~1 hour basic C++ features
- Lab: 2.5 hours programming practices

- **Programming projects**

- 4 projects
- No exams

Topics

- **C++ Introduction**
- **Types**
- **For_each, random number**
- **Class**
- **Inheritance**
- **Polymorphism**
- **Template**
- **Overloading**
- **Dynamic memory allocation**
- **Standard template library**
- **Source code management**
 - Git, cscope, ctag, opengrok
- **Scripting tools in Linux**
 - bash, make, grep, sed, awk

<http://csl.skku.edu/SSE2034S17/Resources>

Class Policies (1)

- **Grading policy (subject to change)**
 - Class attendance + Lab: 50%
 - Projects: 50%
- **Class attendance policy**
 - If you miss any one of the exams, you will fail this course
 - No lateness is allowed
 - Up to four absences will be tolerated

Class Policies (2)

■ Cheating policy

- What is cheating?
 - Copying another student's solution (or one from the Internet) and submitting it as your own
 - Allowing another student to copy your solution
- What is NOT cheating?
 - Helping others use systems or tools
 - Helping others with high-level design issues
 - Helping others debug their code
- Penalty for cheating:
 - Severe penalty (F or more) on the grade and report to dept. chair
- Ask helps to your TA if you experience any difficulty

Questions?