ITP20003 Java Programming

### Course Overview

### Class

- 31 students
- Instructor: Shin Hong <a href="mailto:hong.edu">hongshin@handong.edu</a>
- Teaching assistant: Sinae Kim 21400125@handong.edu

https://bit.ly/2w0G8TB

## **Syllabus**

- Class settings
   https://github.com/hongshin/Java
- Topics
- Lab session
- Assignments
- Policies

# **Topics & Schedules**

08-28	Course overview	10-23	Ch. 9: Exception handling
08-31	Ch. I: Intro.Java, Lab0: Hello, World	10-26	Lab6: Exception handling
09-04	Ch. 2: Basic computation	10-30	Ch. 10: Stream & File I/O
09-07	Ch. 3: Branching, Lab 1	11-02	Lab7: File I/O
09-11	Ch. 4: Loop	11-06	Ch. 10: Networking
09-14	Lab 2: procedural programming	11-09	Lab8: Networking
09-18	Ch. 5: Class and methods	11-13	Ch. 11: Recursion
09-21	Lab 3: Class	11-16	Lab9: Java Swings
09-25	(No class: Chooseok)	11-20	Ch. 12: Collection Utils
09-28	Ch. 6: Objects, Lab4	11-23	Lab 10: Collection Utils
10-02	Ch. 7: Arrays	11-27	Java Virtual Machine & Java Bytecode
10-05	Ch. 7: Inheritance & Polymorphism	11-30	Lab II
10-09	(No class: Hangul)	12-04	JUnit: Testing Java classes
10-12	Lab5: Inheritance & Polymorphism	12-07	Term project demo
10-16	(No class)	12-11	Final exam (TBD)
10-19	Midterm: 9:00AM - 11:00AM	12-14	

### Lab Session

- In 2.5 Hour meetings (Friday)
- Hands-on and/or Classwork
  - Bring your own laptop
- Classwork
  - Total 9-12 times
  - Two students work as a team
    - a new random partner every classwork
  - Solve I to 3 problems in 2 hours
    - A team gets full score only if they pass a test by TA in the class
    - Those who failed can submit the result in 36 hours with 25% penalty
    - Homework will be given together with classwork for a few times

## Assignments

- Up to 2 assignments will be given (individual homework)
- Assignment I
  - Deadline: II:59 PM, 21 Dec
  - Task: Read one of the recommended book thoroughly, and summarize the book, and discuss your thoughts on the topics (new idea, opinion, critique, etc.)
  - Format: 3-5 pages in A4 (single column)
  - Evaluation
    - Novelty of ideas: 50%
    - Adequacy of presentation: 40%
    - Entrance survey: 10%
  - Grading proposition (A: B:C) = (20-30%: 30-50%: 30-50%)

### Recommended Book

- 컴퓨터 과학이 여는 세상 by Kwangkeun Yi
- Gödel, Escher, Bach: An Eternal Golden Braid by Douglas Hofstadter
- Code Complete 2 by Steve McConnell
- Clean Code by Robert C. Martin
- The Software Craftman: Professional, Professionalism, Pragmatism, Pride by Robert C. Martin
- Programming Pearls by John Bentley
- The Pragmatic Programmer by Andrew Hunt
- The Mythical Man-month by Fred Brook, Jr.
- Joel on Software by Joel Spolsky
- Code: The Hidden Language of Computer Hardware and Software by Charles Petzold
- Effective Java by Joshua Bloch
- Elegant Objcts, Vol. I & 2 by Yegor Bugayenko
- The New Turing Omnibus by A. K. Dewdney

## Term Project (Individual Project)

#### Develop a new desktop application

- Each student must propose ideas of useful and interesting desktop apps while the project can be feasible as a term project
- Around 5 proposals will be chosen
- Every student must select one of the chosen proposals as his/her topic, and accomplish the project by the end of the semester

### Evaluation point

- Novelty of project idea 30%
- Quality of implementation 50%
- Adequacy of presentation 20%

#### Schedule

- Oct, 23 Project proposal submission
- Dec, 7 Demo & check
- Dec, 21 Final report submission

## Grading

- Weight
  - Attendance: 5 pt
  - Discussion: 5 pt
  - Lab: 22 pt
  - Term project: 15 pt
  - Assignment: 8 pt
  - Midterm: 20 pt
  - Final exam: 25 pt (with programming test)

Proportion: A / B / C-F = 0-30% / 40-80% / 20-40%

### **Policies**

https://github.com/hongshin/Java/blob/master/POLICY.md

- Communication
- Checking meeting attendance
- Failure

### **Ground Rules**

- A student should read textbooks
- A meeting is to support proactive learning of students
- A student is expected to spend at least 6-8 hours per week by himself/herself to follow-up 4 hour meetings (4 credits)
  - excluding the time for the meetings and for doing homework
- Finding and understanding the obligations of an assignment is a crucial part of the assignment
- Each student must cover all parts of the lab
  - each member may take a part, and must study all aspects

## Study Guideline

- Read, read, read textbook
  - read regularly
  - never move on once you find a unknown word/sentence
  - use your hands to repeat examples
  - memorize definitions
  - peruse stories in boxes
  - never expect that all materials will be covered at the meeting
- Solve exercise problems by yourself
  - read the problem sentence carefully
  - write down an answer completely, and never stop at a middle
  - do have a group study
- Find and use learning materials that fit to you
- Try best to involve in collaborative think (i.e., discuss) at meetings
  - participate or loss the time