Course Syllabus

1. Class Information

- **Class Title**: Digital Computer Concept and Practice
- **Class Number**: 010.133(3 Credits)
- **Semester**: Spring, 2014
- **Level of Course**: Undergraduate / Freshmen
- **Time**: Mon. 16:00-17:50 p.m., Wed. 16:00-17:50 p.m.
- **Location**: Room 112, Bldg. 34 (Mon.) / Room 102, Bldg. 34 (Wed.)
- **Instructor**: Prof. Myung-Il Roh
  Office: Room 205, Bldg. 34
  E-mail: miroh@snu.ac.kr
  Phone: (02) 880-7328
  Office Hours: Available before school and after school by appointment
- **Teaching assistants**: Jung-Woo Hong
  E-mail: rushtoyou@snu.ac.kr
  Office: Room 312, Bldg. 34
  Phone: (02) 880-8378
- **Language of Instruction**: English

※ **Announcement**: Please note that all lectures, assignments, exams, and term projects for this course are in English.

2. Course Topics and Description

Various computational programs are required to maximize the productivity in the field of naval architecture and ocean engineering including structural mechanics, fluid mechanics, design, and production. So far, many programs have been developed for commercial use, and however some programs should be newly developed throuth understanding of such field. In this course, to develop various computational programs needed in the field of naval architecture and ocean engineering, theory and practice about C++, one of computer languages,will be given.

3. Text Book and Reference

(1) Textbook

Roh, Myung-Il, Lecture Note for “Digital Computer Concept and Practice”, Seoul National University, Spring, 2014

(2) References

Prata, Stephen, “C++ Primer Plus”, 5th Edition, SAMS Publishing, 2005

Prata, Sthephen, 윤성일 역, C++ 기초 플러스, 성안당, 2010

윤성우, C++ 프로그래밍, 프리렉, 2004

4. Grade Computation

Weighted system is as follows:

- Two Exams: 70%
- Report or Quiz: 20%
- Attendance: 10%

In case of an excused absence, the student must make-up any missed test, quiz or homework on the following day during a free period, before or after school. Unexcused absences will result in a zero.

5. Website: http://etl.snu.ac.kr

Most assignments, instructions and notice for supplementary lecture will be made only on the website, so check it frequently.

6. Class Expectations

- Late work will be not accepted.
- Show respect to others and their property.
- Come prepared to class.
- It is required to make appointments to see instructor during office hours. Send email for an appointment at least one day in advance.

7. Exam

	Mid-term exam	Final exam
Date	April 23rd, 2014 (Wednesday), 16:00~17:50	June 11th, 2014 (Wednesday), 16:00~17:50
Range of Exam	Chapter 1~7	Chapter 8~13

8. Course Schedule

Week	Course Schedule			
	Monday		Wednesday	
	Date	Time: 16:00~17:50	Date	Time: 16:00~17:50
1	03/03	Introduction Computational Programs in the Field of Naval Architecture and Ocean Engineering	03/05	Getting Started Setting Out to C++
2	03/10	Dealing with Data	03/12	Practice: Dealing with Data
3	03/17	Compound Types	03/19	Practice: Compound Types
4	03/24	Loops and Relational Expressions	03/26	Practice: Loops and Relational Expressions
5	03/31	Branching Statements and Logical Operators	04/02	Practice: Branching Statements and Logical Operators
6	04/07	Functions	04/09	Practice: Functions
7	04/14	Adventures In Functions	04/16	Practice: Adventures In Functions (1)
8	04/21	Practice: Adventures In Functions (2)	04/23	**Mid-term Exam**
9	04/28	Memory Models and Namespaces, Objects and Classes	04/30	Practice: Memory Models and Namespaces
10	05/05	**Holiday**	05/07	Practice: Objects and Classes
11	05/12	Working with Classes	05/14	Practice: Working with Classes (1)
12	05/19	Practice: Working with Classes (2)	05/21	Practice: Working with Classes (3)
13	05/26	Classes and Dynamic Memory Allocation	05/28	Practice: Classes and Dynamic Memory Allocation
14	06/02	Class Inheritance	06/04	Practice: Class Inheritance (1)
15	06/10	Practice: Class Inheritance (2)	06/12	**Final Exam**