

C++ 프로그래밍:
Course Syllabus

2018년도 2학기

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Dept. of Computer Science & Engineering

























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Introduction

- Course title
 - C++ 프로그래밍
- Objective
 - To learn syntax and programming skills for *C++ Language* necessary to implement computer systems
 - Focused on *Object-Oriented Programming (OOP)*
 - To practice and solve actual problems in C++
- ❖ Note that C language basics and syntax (pointers, arrays, operators, ...) which are already covered in the previous class will **NOT** be covered in this course

2018 Programming Language Ranking by IEEE Spectrum

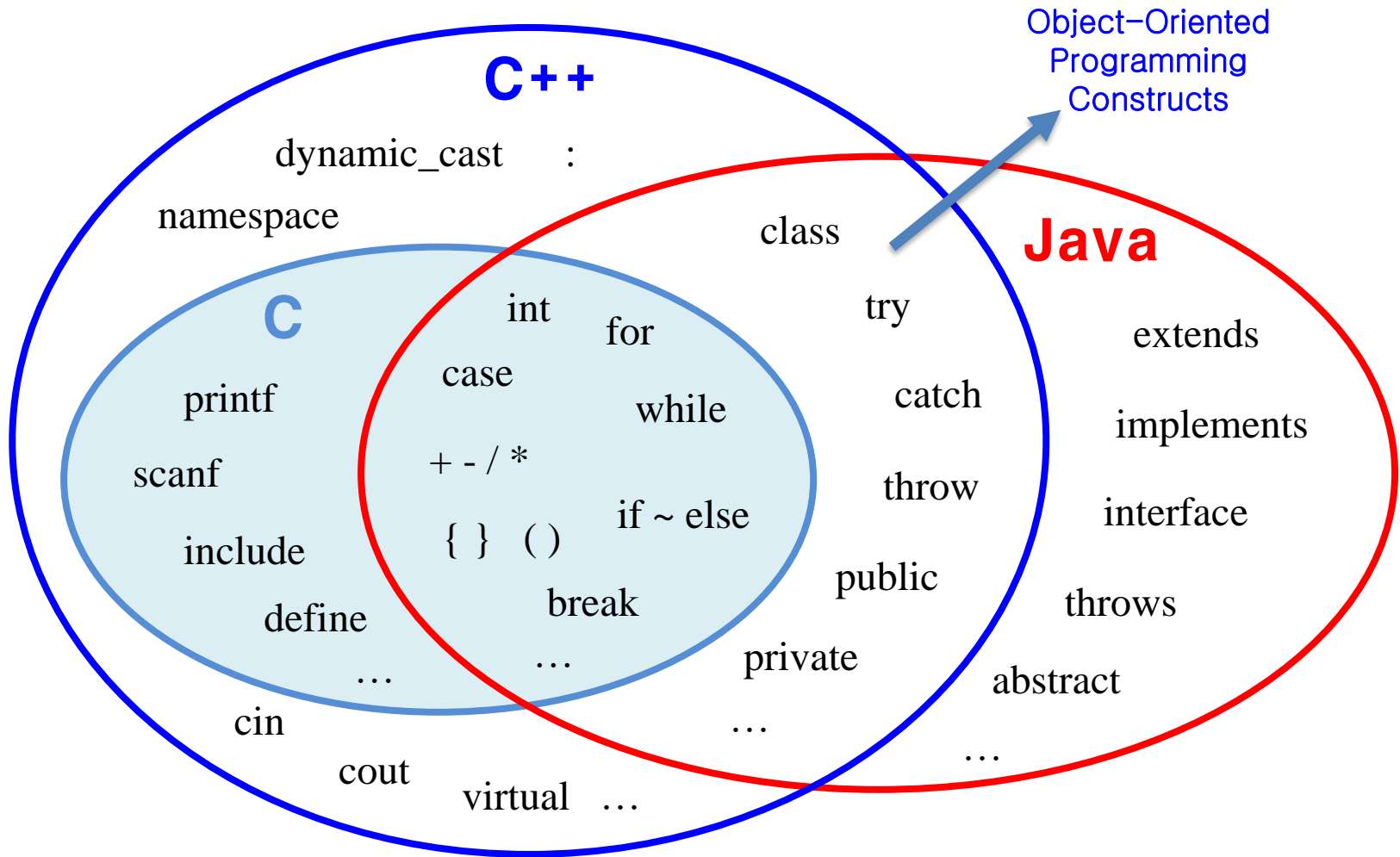
Language Rank	Types	Spectrum Ranking
1. Python	  	100.0
2. C++	  	99.7
3. Java	  	97.5
4. C	  	96.7
5. C#	  	89.4
6. PHP		84.9
7. R		82.9
8. JavaScript	 	82.6
9. Go	 	76.4
10. Assembly		74.1

↑ 2017 4위

Major Programming Languages for Specific Areas

Language	Type				Note
	Web	Mobile	Enterprise	Embedded	
Java	O	O	O	Δ	Originally developed for embedded devices
C		O	O	O	
C++		O	O	O	
Python	O		O		
C#	O	O	O		
R			O		Statistics Big Data Analysis
PHP	O				
JavaScript	O	O			
Ruby	O		O		
Matlab			O		Numeric Analysis

C, C++, and Java

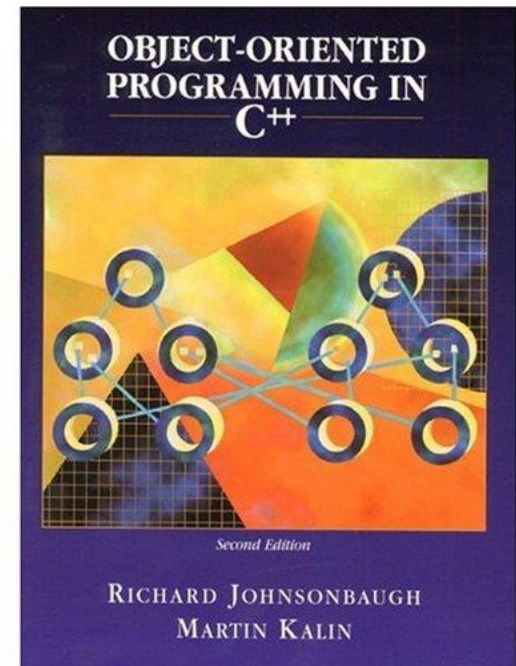


Class Information

- Time and location
 - Class A (3610)
 - Lecture: Wed. 14:00~16:00, Room #402
 - Practice: Thu. 16:00~18:00, Room #402
 - Class B (3611)
 - Lecture: Wed. 17:00~19:00, Room #402
 - Practice: Thu. 09:00~11:00, Room #402
- Languages
 - Syllabus and class material
 - English
 - Lectures, assignments, and interaction
 - Both English and Korean

Textbook

- Main textbook
 - *"Object-Oriented Programming in C++"*
 - Authors: Richard Johnsonbaugh and Martin Kalin
 - Publisher: Prentice Hall
- References
 - "C++ program design: an introduction to programming and object-oriented design" by J. Cohoon
 - "C++ from the ground up" by H. Schildt
 - "Introduction to Programming with C++" by Y. D. Liang



Topics and Schedule

Weeks	Major Topics
Week 1	Introduction to course syllabus and programming environment
Week 2	Basic concepts of OO programming and C++
Week 3	C++ programming basics (new features of C++)
Week 4	Classes and objects 1
Week 5	Classes and objects 2
Week 6	Inheritance 1
Week 7	Inheritance 2
Week 8	Midterm exam (Programming exam)
Week 9	Polymorphism 1
Week 10	Polymorphism 2
Week 11	Operator overloading 1
Week 12	Operator overloading 2
Week 13	Template classes 1
Week 14	Template classes 2
Week 15	C++ I/O classes
Week 16	Final exam (Term project evaluation)

Lectures and Practices

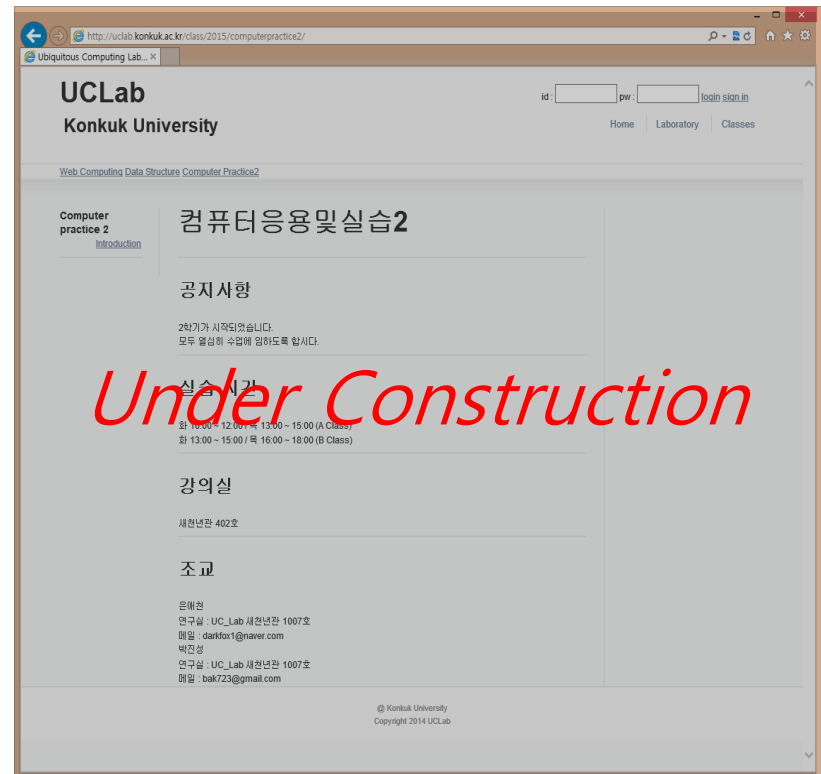
- Lectures on the major topics will be given with Power Point (PPT) presentations
 - Presentation files (including syllabus) can be downloaded from the course homepage before the corresponding class
- Programming practices related to the previously given lectures
 - Programming environment: MS Visual Studio
 - Writing, compiling and running some program examples from the textbook or the lecture note
 - Solving some programming problems with C++

Grading Policy

- Midterm exam: 30%
 - Programming exam
- Final exam: 40%
 - Programming exam
- Homework and Assignment: 20%
 - Late work will be graded for 50% credit if submitted till the next day following the due date (after that, no grade will be given)
- Class participation: 10%
 - 2 lates = 1 absence
 - More than five absences will result in no grade

Course Homepage

- How to access
 - URL: http://sclab.konkuk.ac.kr/class/2018/cpp_programming
 - Under construction
- Downloading class material
 - Students can download syllabus and lecture notes in PDF format
- Class announcement
 - About homework and project
 - Exam schedule and result
 - And so on



Contact Information

- Instructor: 하영국 교수
 - Office: 공학관 C동 291-2호
 - Phone: 02-450-3273 (내선 3273)
 - Email: ygha@konkuk.ac.kr
 - Office hour: 수업 후 1시간 (또는 사전 연락 후 상담)
- Teaching assistant: 장성수
 - Office: 신공학관 1216호 (대학원 SCLab 연구실)
 - Email: pik1100@naver.com