Lecture 1

C++ Programming

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Contact

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- **All course material will be available on Hanyang-LMS**

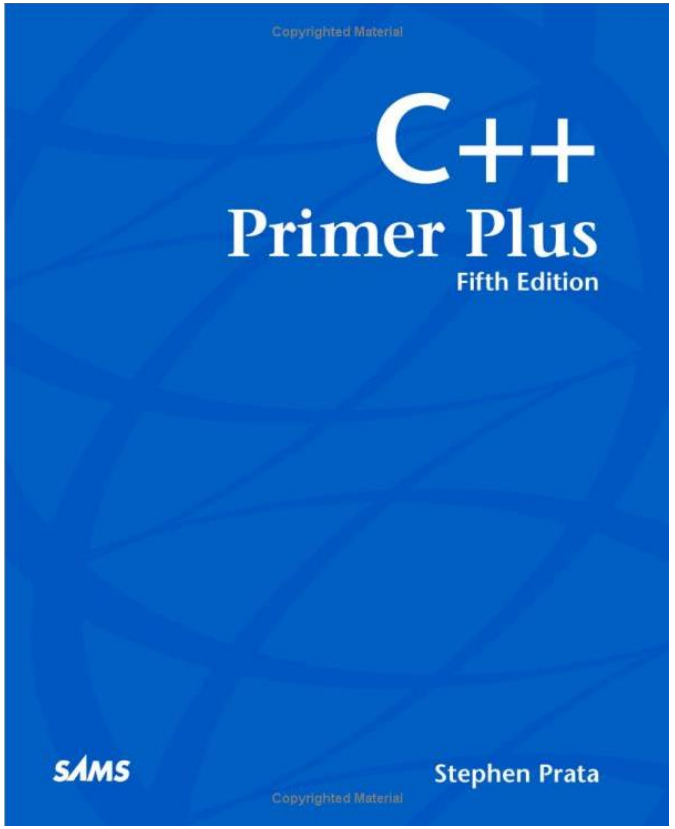
Prof. Dr. Arne Kutzner / Weekly Schedule 2022.2

	Mon	Tue	Wed	Thu	Fri
9:00 – 10:30					
10:30 – 12:00		C++(B) 11:00 - 13:00 (ITBT – 508)	C++(B) 11:00-13:00 (ITBT – 703)		
12:00 – 13:30			Exercising		
13:30 – 15:00	C++(A) 13:00-15:00 (ITBT – 202)	C++(A) 13:00-15:00 (ITBT – 703)			
15:00 – 16:30		Exercising			
16:30 – 18:00	Alg. Analysis 16:00– 17:30 (ITBT – 203)	Alg. Analysis 16:00-17:30 (ITBT – 203)			

Literature (suggestion merely!)

Stephen Prata,
C++
Primer Plus
(6 Edition),
Addison-Wesley
Professional, 2012.

Korean version available



Textbook is a suggestion merely / You do not have to buy it!

- C++ is standardized, so in all textbooks on C++ is finally the “same story”.
  - There are even some free textbooks on C++ available in the WEB
- There are many good C++ tutorials in YouTube etc.
- Answers for more specific questions can often be found in: https://stackoverflow.com

Goals

Introduction to the C++ Programming Language and the basic concepts of Object Oriented Programming

- Understanding of the notions **Object**, **Class** and **Inheritance**
- Gaining of basic programming skills
- Understanding the position of C++ in the context of other programming languages (Pyhton, Rust, Java, C#)

Provisional Schedule

Week	
2	Introduction, Basic Datatypes, “Hello World”-Program
3	Control Structures, Expressions, Operators
4	Functions, Function Overloading, Recursive Programming
5	Arrays, Definition, Searching and Sorting of Arrays
6	Pointers and Pointer Arithmetic
7	Structures, Enumerated Types, Bitwise Operators
8	**Midterm Examination**
9	Foundations of OO-Programming, Class Definitions
10	Encapsulation in C++ (public versus private), Constructors
11	Inheritance (protected modifier), Method Overriding, Polymorphism
12	Exception Handling, Try-Catch-Blocks
13	C++ Templates, Intro to Standard Templates (STL)
14	STL cont., Remarks on C++03, C++11,C++14, C++17, C++20
15	**Final Examination**

Structure of the Course

- **Lecture**
  - Offline Lecture in room 202
- **Exercising Classes in room 703**
  - TA will repeat highlights of lecture and exercise with the students
  - Opportunity to make friends and to „sozialize“
  - Please check Hanyang-LMS for annoucements
- **Homework Assignments**
  - Homework is for the preparation of midterm and final examination
  - Reports have to be submitted as PDF via Hanyang-LMS

Grading

- **Composition of final grade**:
  - Midterm Examination - 35%
  - Final Examination - 35%
  - Homework Reports - 20%
  - Attendance - 10%
    (5% Lecture, 5% Exercising)

Absolute Grading

- **A** from 90% of max. reachable points
  - (A+ 95% min)
- **B** from 75% of max. reachable points
  - (B+ 85% min)
- **C** from 60% of max. reachable points
  - (C+ 70% min)
- **D** from 45% of max. reachable points

Foreigner specific …

- Lecture will be in English
  - Additionally, I will upload old recorded classes on Hanyang LMS for conveniently repeating the material
- TA's Exercising will be primarily in Korean
  - Please attend the exercising classes although they are in Korean
  - The exercising is a great opportunity to "pick up" some Korean Language knowledge
- Be careful regarding your attendance record! You have to attend at least 2/3 of all classes or you can not pass the course,

Maximal number of attending students – (Covid 19)

- Due to the maximally **48** seats in room 703 and the Covid 19 regulations, the number of participating students must be limited to **48** students.
- Therefore, this semester, I cannot give attendance permissions via E-Mail or via offline forms.