

Object-Oriented Programming Course Conclusion

Prof. YoungWoon Cha

CSE Department Spring 2023

Course Conclusion

Course Objectives

 This course introduces fundamental concepts of object-oriented programming (OOP) with C++ programming language.

Lecture Contents

- OOP principles:
 - Encapsulation, Inheritance, Polymorphism, Overloading ...
- Practice and solve problems using C++ language.

The Topics Covered So Far

Wk	Topic	Contents
1	Introduction to the course	Course Syllabus, C++ and OO programming concepts
2	Classes	Basics on C++ language and differences from C language
3	Classes	Classes and objects, using classes and objects, constructors and destuctors
4	Classes	Data members and methods, object pointers
5	Inheritance	Basic concepts for inheritance, protected members
6	Inheritance	Constructors and desctuctors in inheritance, multiple inheritance
7	Polymorphism	Basics on polymorphism
8	Mid-term exam	Mid-term exam

9	Polymorphism	C++ binding, name overloading and hiding, abstract base classes
10	Operator overloading	Basic operator overloading, operator overloading for top-level functions, friend functions
11	Operator overloading	IO operator overloading, assignment operator overloading, special operator overloading
12	Template classes	Basics on template classes
13	Template classes	Standard template library (STL)
14	C++ IO classes	Basics on IO classes, ios_base and basic_ios, high-level IO classes
15	C++ IO classes	IO manipulator, file IO classes, Character stream IO classes, buffer classes
16	Final exam	Final exam

So What is the OOP Principles?

- Object-Oriented Programming Principles
 - Encapsulation (Object)
 - Abstraction (Class)
 - Inheritance (Base Class, Subclass)
 - Polymorphism (Function/Operator Overloading/Overriding)
 - Generic Programming (Template classes/functions, STL)

Truly End of Class

Thank you For Taking This Class!

E-mail: youngcha@konkuk.ac.kr