

Wrap-Up



EECS2030 F: Advanced
Object Oriented Programming
Fall 2022

CHEN-WEI WANG

What You Learned (1)



- **Procedural Programming in Java**
 - Exceptions
 - Recursion (tracing & implementation)
- **Data Structures**
 - Arrays

2 of 8

What You Learned (2)



- **Object-Oriented Programming in Java**
 - classes, attributes, objects, reference data types
 - methods: constructors, accessors, mutators, helpers
 - dot notation, context objects
 - aliasing
 - inheritance:
 - code reuse
 - expectations
 - static vs. dynamic types
 - rules of substitutions
 - compilable casts, `ClassCastException`, `instanceof` checks
 - polymorphism and method arguments/return values
 - method overriding and dynamic binding: e.g., `equals`

3 of 8

What You Learned (3)



- **Integrated Development Environment (IDE): Eclipse**
 - Break Point and Debugger
 - Unit Testing using JUnit

4 of 8

Optional Topics

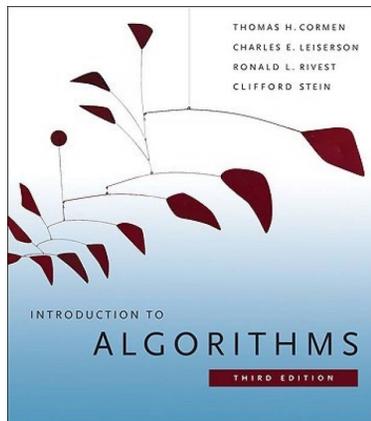


https://www.eecs.yorku.ca/~jackie/teaching/lectures/index.html#EECS2030_F21

- **Abstract Classes & Interfaces** [Week 10]
- **Generics** [Week 10 & 11]

5 of 8

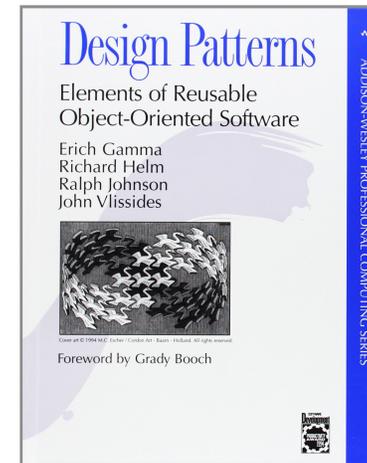
Beyond this course... (1)



- *Introduction to Algorithms (3rd Ed.)* by Cormen, etc.
- DS by DS, Algo. by Algo.:
 - **Understand** math analysis
 - **Read** pseudo code
 - **Translate** into Java code
 - **Write and pass** JUnit tests

6 of 8

Beyond this course... (2)



- *Design Patterns: Elements of Reusable Object-Oriented Software* by Gamma, etc.
- Pattern by Pattern:
 - **Understand** the problem
 - **Read** the solution (not in Java)
 - **Translate** into Java code
 - **Write and pass** JUnit tests

7 of 8

Wish You All the Best



- What you have learned will be **assumed** in EECS2011.
- Logic is your friend: Learn/Review EECS1019/EECS1090.
- Do **not** abandon Java during the break!!
- Feel free to get in touch and let me know how you're doing :D

8 of 8