




















CS330, Fall 2013

CS330 Outline & Topics



Topics	Lecture Notes	Readings	Assignments & other events
1 Course Overview			
		C++ text as needed Horstmann 1 (skim) Fowler 1	Course orientation & introduction (08/26/2013, 19:30:00-20:30:00)
2 Pre-OO: ADTs & C++			
2.1 ADTs			
	ADTs	Horstmann 3	
2.2 Implementing ADTs with C++ classes			
	Implementing ADTs in C++ + Classes Constructors and the Rule of the Big 3 A C++ Class Designer's Checklist	(C++)	Asst: C++ ADTs (Due: 09/25/2013)
3 OO Analysis & Design: Workflows, Models, & Classification			
3.1 Process			
	Workflows Software Development Processes	Horstmann: 2-2.2 Fowler 2	
3.2 Classification			
	Discovering and Documenting Classes Example: Domain Model	Horstmann: 2.3-2.7	

Using CRC Cards		
3.3 Relationships		
 UML Class Diagrams  Example: Class Diagrams (Domain Model)	 Horstmann: 2.8, 2.12  Fowler 4, 6	 Asst: Early Elaboration (Due: 10/06/2013)  Net conference: solutions to the early elaboration assignment (10/16/2012, 19:30:00-20:30:00)
4 OOP		
4.1 Inheritance		
 Inheritance: The is-a relation	 (C++)	
4.2 Dynamic Binding		
 Dynamic Binding: Class-Appropriate behavior  Making Inheritance Work: C++ Issues  Inheritance and Dynamic Binding: idioms and common patterns	 C++ text as needed	 Asst: OOP in C++ (Due: 10/25/2013)
4.3 Sharing		
 Sharing Pointers and Garbage Collection  End of material to be covered on the midterm exam		
5 OOA&D: Use Cases		
 Use Cases  Interaction Diagrams	 Horstmann 2.9-2.12  Fowler 3, 5	 Asst: Later Elaboration (Due: 11/15/2013)
6 Java		
6.1 Working in Java		

	 Java - First Impressions for a C++ Programmer	 1. Getting Started  2. Basics  Horstmann: 1, 2.11  3. In the Java Style	
6.2 OOP in Java			
	 Inheritance in Java  A Class Designer's Checklist for Java	 Horstmann: 4, 6	 Asst: OOP in Java (Due: 11/17/2013)
7 Applying OOP			
7.1 Graphic User Interfaces			
	 Functors - Objects That Act Like Functions  Example: Building a Java GUI	 Java Tutorial: Creating a GUI with JFC/Swing  Horstmann: 5	 Asst: Modifying a Java GUI (Due: 12/05/2013)
7.2 Multi-Threading			
	 ???  Multi-Threading : Doing Things in Parallel  Case Study: threads in the spreadsheet	 Java Tutorial: Concurrency  Horstmann: 9	 Asst: adding threads to a Java GUI (Due: 12/06/2013)
8 Exams and Special Events			
	 Classes start (08/26/2013)  Labor Day holiday (09/02/2013)  Fall holiday (10/12/2013 - 10/15/2013)  Midterm Exam (10/18/2013)		

- 10/19/2012)		
 Last day to withdraw (11/06/2013)		
 Thanksgiving Holid ay (11/27/2013 - 11/31/2012)		
 Last day of classes (12/06/2013)		
 Final exam (12/07/2013 - 12/09/2013)		

Symbol Key



Conference



Slides & Lecture Notes



Text



Exam



Lab Assignment



Assignment



CS382 readings

