CS5700 - Class Schedule

As of Sept. 2, 2016

Date	Areas	Topics	Reading	Start HW	HW Due
8/29/16	Principles:	Introduction to Course Fundamental software engineering concepts			
8/31/16	Principles:	Introduction to object orientation Object identity Classification Encapsulation and localization of design decisions Abstraction	Parnas, 1972		
9/2/16	Principles: Patterns:	Inheritance and Aggregation Encapsulation what varies Favor aggregation over inheritance Intoduction to design patterns Strategy	Chapter 1	HW1	
9/5/16		No class - Labor Day			
9/7/16	Principles: Practices: Pitfalls:	Conceptual Modeling Object Identity Review of UML Introduction to design pitfalls and code smells Duplicate Code			
9/9/16	Principles: Practices:	Abstraction Reuse via hierarchies: aggregation or inheritance Favoring aggregation over inheritance Program to an interface			
9/12/16	Practices: Pitfalls:	Unit testing with executable test cases Meaningful identifiers Uncommunitive names Inconsistent names Types embedded in names			
9/14/16	Principles:	Low coupling and high cohesion Software layers	Chapter 2		
9/16/16	Patterns:	Observer		HW2	HW1
9/19/16	Practices:	Decoupling with events and event handlers			
9/21/16	Practices:	Observer			
9/23/16	Principles: Practices: Patterns: Pitfalls:	Delegation Interfaces Decorator Combinatorial explosion Message chains	Chapter 3		
9/26/16	Principles: Practices: Pitfalls:	Modularization Open for extension / closed for modification Hidden dependencies			
9/28/16	Principles: Patterns:	Abstraction revisited Simply factory	Chapter 4		
9/30/16	Principles: Patterns:	Depend on interfaces instead of concrete classes Factory Method Patterns			

10/3/16	Principles: Patterns: Pitfalls:	Transparency Abstract Factory Parallel Inheritance Hierarchies			
10/5/16	Principles:	Dependency inversion			
10/7/16	Patterns:	Singleton	Chapter 5		
10/10/16	Patterns:	Flyweight		HW3	HW2
10/12/16	Pinciples:	More on abstraction More on encapsulation			
10/14/16	Principles: Patterns: Pitfalls:	More on low coupling Command Long parameter lists	Chapter 6		
10/17/16	Patterns:	Mediator			
10/19/16		Review for Midterm			
10/20/16		Midterm			
10/24/16	Principles: Patterns:	Keep interfaces clean and meaningful Adapters using inheritance	Chapter 7		
10/26/16	Patterns:	Adapters using delegation			
10/28/16	Patterns: Pitfalls:	Façade Large classes			
10/31/16	Principles: Patterns:	Encapsulation general algorithms Polymorphism Template Method	Chapter 8	HW4	HW3
11/2/16	Paterns:	Builder			
11/4/16	Principles: Practices:	More on coupling and cohesion "Don't call us; we'll call you"			
11/7/16	Patterns:	Iterator	Chapter 9		
11/9/16	Patterns:	Composite			
11/11/16	Patterns:	Visitor			
11/14/16	Patterns: Pitfalls:	State Conditional Complexity	Chapter 10		
11/16/16	Pitfalls:	Redundant or meaningful comments Oddball solution		HW5	HW4
11/18/16	Principles: Pattern:	Transparency Proxy	Chapter 11		
11/21/16	Pitfalls:	Indecent exposure Middle Man			
11/23/16		No class - Thanksgiving			
11/25/16		No class - Thanksgiving			
11/28/16	Practices: Patterns:	Pattern Languages Compound	Chapter 12		
11/30/16	Pitfalls:	Dead Code Speculative Generality Temporary Field			
12/2/16	Pitfalls:	Refused Bequest Inappropriate Intimacy Feature Envy			
12/5/16	Practices:	Put patterns into practices	Chapter 13		
12/7/16		Review for Final			
12/9/16		Review for Final			HW5

12/12/15   Final: 1:30 - 3:20 pm