Final Exam Study Guide

Software Engineering

The final exam will be comprehensive covering all the materials discussed in class up to the last lecture. This study guide is intended to help focus your study time.

You are responsible for all of the material included in the slides. In most cases this material can be found in the Seventh Edition of the Roger S. Pressman textbook.

Make sure you know the meaning of these terms:

* Extreme Programming
* Software project management
* Domain specific architectural models
* Verification
* Fault, Error , Bug
* Objects (in Object Oriented Design)
* Reliability
* Integration testing
* Regression testing
* Black box testing
* White box testing
* Fault tolerance (or tolerant)
* Fault detection
* Recovery block
* Waterfall model
* Software prototyping
* Safety critical systems
* Systems engineering
* Software quality assurance
* Software maintenance
* Software configuration management
* Walk-through, FTR (formal technical review)
* Software life cycle
* Validation
* Partition testing
* Fault avoidance
* Requirements analysis
* Software engineering
* GUI design principles

Review the following topics from your book

1.2 Software Engineering

2.2 Process Models

3.3 Agile Process

3.4 Extreme Programming

4.1 Requirement Engineering

4.4 Developing Use cases

4.5Building Requirement Model

5.2 Scenario based Modeling

6.2 Flow Oriented Modeling

7.3 Design concepts

9.2 Designing class based component

10.4 Interface design steps

11.2 Software quality

11.3 The software Quality Dilemma

12.6 Formal Technical Reviews

13.3SQA Tasks, Goals and metrics

13.4Formal Approaches to SQA

14.1A Strategic Approach to software Testing

14.3Test Strategies for Conventional Software

14.5Validation Testing

14.6System Testing

15.3White-Box Testing

15.4Basis path testing

15.5 Control Structure Testing

15.6Black Box testing

16.3Object-Oriented Testing Strategies

18.1The Management Spectrum

19.2Software Measurement

20.2The Project Planning Process

20.4Resources