Test 1 Study Guide

Fall 2014 Software Engineering II

**Test Dates:**

Section 001, 201 29 October

**Material Covered:**

Lectures: Up to and including Lecture 7 – Risk Analysis

Homework Assignments: Scheduling, Estimating

**Test Format:**

1. Factoids (True/False, Fill-In-The-Blank, Multiple Choice) **(20 – 30 points)**
   1. 10 – 15 questions, each worth 2 points
2. Short Answer (1 – 3 Statements, complete sentences not required) **(30 points)**
   1. Questions of fact not easily assessed by factoids or light analysis.
3. Calculations, Analysis and Discussion **(40 points)**
   1. Project Planning
      1. Key Elements of SPMP
      2. WBS – What is it; How to do a WBS; Two general approaches, which is preferable and why; How to validate
      3. WBS Myths & Project Fortune-Tellers
      4. Project Vision Statement – be able to critique
   2. Scheduling
      1. Tasks versus milestones
      2. Gant Charts - interpretation (Take home tests how to do)
      3. Network Diagrams - interpretation (Take home tests how to do)
      4. Critical Path - interpretation (Take home tests how to do)
      5. PERT– how to do; difference between the duration estimates and the weights
   3. Estimation of size and effort using
      1. The five categories
      2. Precision versus accuracy
      3. Lines of code as a size metric
      4. FFP – how to do
      5. Function Points– how to do
      6. Simple Object-Oriented Estimation – how to do
      7. Fitting Effort Data - interpretation (Take home tests how to do)
      8. Preparing Cost Bid - interpretation (Take home tests how to do)
4. Oral Presentations
   1. Why you should care about oral presentations
   2. Relevance of learning styles to presentation aids
   3. Keys to an effective presentation
   4. Design guidelines for presentation aids
5. Risk Management
   1. Why is it necessary to explicitly acknowledge risks
   2. Two categories of the sources of risk and their subcategories
   3. McConnell’s Risk Curve and its interpretation
   4. Levels of Risk Management
   5. Elements of Risk Management
   6. McConnell Risk Plan – the five elements
   7. Barry Boehm’s Top Ten Risk List – issues and mitigation techniques
6. Risk Analysis
   1. Cockburn’s four levels of criticality
   2. Two components of risk analysis
   3. Risk exposure – how to calculate
   4. Risk matrix – four types and how to interpret
7. Take Home Portion
   1. Due by email
      1. Prior to noon on 31 October
      2. Email Subject Line and Document name per instructions

**Nota Bene:** All point values are approximate.