Fall 9-1-2000

CS 541.01: Requirements & Specifications

Joel Henry
University of Montana - Missoula, joel.henry@umontana.edu
Course Syllabus
CS 541 Requirements & Specifications

PREREQUISITE: MATH 225, CS 331 and CS 335, or consent of instructor.

COURSE OBJECTIVES:
You will gain an understanding of Software Engineering, including process and product issues, planning, management, quality assurance, configuration management, and measurement. In addition, you will learn and put into practice methods and techniques for eliciting, analyzing, specifying, reviewing, and presenting software requirements and specifications using both conventional and object-oriented methods.

INSTRUCTOR:
Name: Joel Henry
Office: Social Sciences 411
Office Hours: MWF 9-10; Tuesday, Thursday 1-2
If the door is open I am available.
E-mail address: henryj@cs.umt.edu
Phone: 243-2218

TOPICS:
I. Software product and process.
II. Project management.
III. Process and process measurements.
IV. Project planning and scheduling.
V. Project management.
VI. Software quality assurance.
VII. Configuration management.
VIII. Conventional requirements analysis and specification.
IX. Object-oriented requirements analysis and specification.
X. CASE tools and environments.

Texts:
Software Engineering, Pressman, and
Fundamentals of Object-Oriented Design in UML, Page-Jones

Course Deliverables:
Tests (3 @ 20% each): 60%
Assignments (5-6): 30%
Presentations (2-4): 10%

Grading:
Grading scale: 59.5 or lower F, 59.6-69.5 D, 69.6-79.5 C, 79.6-89.5 B, 89.6 – 100 A

Late Policy: Hand in materials:
1 day (24 hours) - 10%
2 days (48 hours) - 30%
3 days (72 hours) - 50%
4 days or more - No thanks, I don’t want it.

Presentations:
No late presentations.
**Computer Science 541 - Syllabus**

**Cheating:**
Plagiarism will be handled harshly, as per the Student Conduct Code. You may fail the assignment or the course. **MY ADVICE:** Take an F rather than cheat.

**Tentative Schedule:**

<table>
<thead>
<tr>
<th>Week</th>
<th>Tuesday</th>
<th>Thursday</th>
<th>Material</th>
<th>Assignment</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Sept. 5 – Introduction, Syllabus, Course Information, Software Product</td>
<td>Sept. 7 – Software product and process</td>
<td>Pressman Preface, Chapters 1 &amp; 2</td>
<td>Informal presentation assigned</td>
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<tr>
<td>2</td>
<td>Sept. 12 – Project Management</td>
<td>Sept. 14 – Project Management, presentations</td>
<td>Pressman Chapter 3</td>
<td>Informal presentations due September 14</td>
</tr>
<tr>
<td>3</td>
<td>Sept. 19 – Process and Project Metrics</td>
<td>Sept. 21 – Project Planning</td>
<td>Pressman Chapters 4 &amp; 5</td>
<td>Homework assigned</td>
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<tr>
<td>4</td>
<td>Sept. 26 – Project Planning</td>
<td>Sept. 28 – Homework Due</td>
<td>Pressman Chapter 5</td>
<td>Homework due September 28</td>
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<tr>
<td>5</td>
<td>Oct. 3 – Homework returned, test review</td>
<td>Oct. 5 – Test 1</td>
<td>Review Pressman and class materials</td>
<td>Prepare for test – open note, open book</td>
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<tr>
<td>6</td>
<td>Oct. 10 – Test returned and reviewed, Risk analysis</td>
<td>Oct. 12 – Risk, Project scheduling and tracking</td>
<td>Pressman Chapters 6 &amp; 7</td>
<td>Homework assigned</td>
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<td>7</td>
<td>Oct. 17 – Project Tracking</td>
<td>Oct. 19 – Quality Assurance, Presentation</td>
<td>Pressman Chapters 7 &amp; 8</td>
<td>Homework due October 19</td>
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<td>8</td>
<td>Oct. 24 – Configuration Management</td>
<td>Oct. 26 – Configuration Management</td>
<td>Pressman Chapter 9</td>
<td>Homework assigned October 24</td>
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<td>9</td>
<td>Oct. 31 – System Engineering, Introduction to Requirements</td>
<td>Nov. 2 – Requirements engineering</td>
<td>Pressman Chapter 10 and class materials</td>
<td>Homework due November 2</td>
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<td>10</td>
<td>Nov. 7 – No class, Election Day Holiday</td>
<td>Nov. 9 – Analysis Concepts</td>
<td>Pressman Chapter 11</td>
<td>Homework assigned November 7</td>
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<td>11</td>
<td>Nov. 14 – Analysis Modeling, introduction to Rational Rose</td>
<td>Nov. 16 – Analysis Modeling, Rational Rose</td>
<td>Pressman Chapter 12</td>
<td>Homework due November 14</td>
</tr>
<tr>
<td>12</td>
<td>Nov. 21 – Test 2</td>
<td>Nov. 23 – Thanksgiving Holiday</td>
<td>Review Pressman and class materials</td>
<td>Prepare for test – open note, open book</td>
</tr>
<tr>
<td>13</td>
<td>Nov. 28 – Return and review test, Object-Oriented Paradigm</td>
<td>Nov. 30 - Object-Oriented Paradigm</td>
<td>Pressman Chapter 20</td>
<td>Top-Level Requirements (TLR) assigned Nov. 28</td>
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<td>14</td>
<td>Dec. 5 – Object-Oriented Analysis</td>
<td>Dec. 7 - Object-Oriented Analysis, Presentations</td>
<td>Pressman Chapter 21</td>
<td>TLR informal Status presentation due December 7</td>
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<tr>
<td>16</td>
<td>Wednesday, December 20</td>
<td>3:20-5:20</td>
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<td>Final Exam</td>
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