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# CS 541.01: Requirements & Specifications

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# 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:**

Joel Henry
Social Sciences 411
MWF 9-10; Tuesday, Thursday 1-2
If the door is open I am available
henryj@cs.umt.edu
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:		Presentations:
	1 day (24 hours) -	10%	No late presentations.
	2 days (48 hours) -	30%	
	3 days (72 hours) -	50%	
	4 days or more -	No thanks, I don't want it.	

# **<u>Cheating</u>**:

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:**

Week	Tuesday	Thursday	Material	Assignment
1	Sept. 5 – Introduction,	Sept. 7 – Software	Pressman	Informal
	Syllabus, Course Information,	product and process	Preface,	presentation
	Software Product		Chapters 1 & 2	assigned
2	Sept. 12 – Project Management	Sept. 14 – Project	Pressman	Informal
		Management,	Chapter 3	presentations due
		presentations		September 14
3	Sept. 19 – Process and Project	Sept. 21 – Project	Pressman	Homework assigned
	Metrics	Planning	Chapters 4 & 5	
4	Sept. 26 – Project Planning	Sept. 28 – Homework	Pressman	Homework due
		Due	Chapter 5	September 28
5	Oct. 3 – Homework returned,	Oct. 5 – Test 1	Review	Prepare for test –
	test review		Pressman and	open note, open
			class materials	book
6	Oct. 10 – Test returned and	Oct. 12 – Risk, Project	Pressman	Homework assigned
	reviewed, Risk analysis	scheduling and tracking	Chapters 6 & 7	
7	Oct. 17 – Project Tracking	Oct. 19 – Quality	Pressman	Homework due
	<u> </u>	Assurance, Presentation	Chapters 7 & 8	October 19
8	Oct. 24 – Configuration	Oct. 26 – Configuration	Pressman	Homework assigned
	Management	Management	Chapter 9	October 24
9	Oct. 31 – System Engineering,	Nov. 2 – Requirements	Pressman	Homework due
	Introduction to Requirements	engineering	Chapter 10 and	November 2
			class materials	
10	Nov. 7 – No class, Election	Nov. 9 – Analysis	Pressman	Homework assigned
	Day Holiday	Concepts	Chapter 11	November 7
11			<b>D</b>	TT
11	Nov. 14 – Analysis Modeling,	Nov. 10 – Analysis	Pressman	Homework due
	Introduction to Kational	Modeling, Rational Rose	Chapter 12	November 14
12	Nov 21 Test 2	Nov 23 Thanksgiving	Pavian	Prepare for test
12	100.21 - 100.2	Holiday	Dressman and	oren note oren
		Honday	close motorials	book
13	Nov 28 Peturn and review	Nov. 30 Object	Dressman	Ton Level
15	test Object Oriented Paradiam	Oriented Paradigm	Chapter 20	Pequirements (TIP)
	iest, object-oriented i aradigin	Offented I aradigin	Chapter 20	assigned Nov 28
14	Dec. 5 – Object-Oriented	Dec. 7 - Object-	Pressman	TLR informal Status
- '	Analysis	Oriented Analysis.	Chapter 21	presentation due
		Presentations	Chapter 21	December 7
15	Dec. 12 – CASE Tools	Dec. 14 – CASE Tools.	Pressman	TLR due Dec. 14
		Presentations	Chapter 31	
16	Wednesday, December 20	3:20-5:20	*	Final Exam