

Professor: Blase B. Cindric

Phone: (330) 829 - 6649

E-mail: cindricbb@mountunion.edu

Office: KHIC 048

Office Hours: Monday & Wednesday 4:05 - 4:45 pm,
or by appointment**Course Description:**

A study of software development characterized by a practical, orderly and measured development process. The dominant features of this process are requirements specification, selection of a software life cycle model, software design, project management techniques and quality assurance. Students majoring in the Computer Science Department must pass both CSC 491 and CSC 492 to graduate. 2 Sem Hrs.

Prerequisites: Senior standing in the major, or consent of instructor.

Textbook: Dooley, John. Software Development and Professional Practice. APress, 2011. Available via SAFARI.

Means of Evaluation:

2 Research Papers (40 pts each)	= 80 pts
Class Participation *	= 60 pts
2 Exams (70 pts each)	= 140 pts
Assignments throughout the semester	= 70 pts
Mock Interview Participation	= 50 pts
Final Exam (Sun., Dec 8, 6 pm).....	= 50 pts
TOTAL POINTS POSSIBLE:.....	= 450 pts

***Note:** Class participation entails attentive attendance in each class meeting. It is possible to earn zero points in a class that you have physically attended.

Grading Criteria:

92.00% - 100.00% = A	(414 – 450 pts)
90.00% - 91.99% = A-	(405 – 413 pts)
88.00% - 89.99% = B+	(396 – 404 pts)
82.00% - 87.99% = B	(369 – 395 pts)
80.00% - 81.99% = B-	(360 – 368 pts)
78.00% - 79.99% = C+	(351 – 359 pts)
72.00% - 77.99% = C	(324 – 350 pts)
70.00% - 71.99% = C-	(315 – 323 pts)
60.00% - 69.99% = D	(270 – 314 pts)
0.00% - 59.99% = F	(0 – 269 pts)

Course Policies:

Penalty for late work: 40% deduction per class period for all work. Attendance is mandatory for class sessions. A penalty of 10 points will be deducted for each class or meeting missed after the fourth absence. No cellular phones or other communication devices may be employed during any in-class evaluation.

Tentative Weekly Schedule:

Assignment due dates will be announced when assigned

Week	Monday	Wednesday
1	8/19: Introduction to Software Engineering	8/21: Essential Software Engineering Activities
2	8/26: Software Development Life Cycle Models	8/28: more Life Cycle Models
3	9/ 2: *** LABOR DAY *** NO CLASS ***	9/ 4: Agile Development Methods / Life Cycle
4	9/ 9: more Agile	9/11: Requirements Acquisition and Management
5	9/16: more Requirements	9/18: CMMI for Process Reliability
6	9/23: Planning/Estimating/Scheduling	9/25: Software Design Paper # 1 rough draft due
7	9/30: Software Design Levels/Techniques	10/ 2: more Design Issues – Unified Modeling Language
8	10/ 7: [EXAM # 1]	10/ 9: Ethics in Soft. Eng. Paper # 1 final version due
9	10/15: more Design Issues – Data Flow Diagrams	10/16: Professional Practice
10	10/21: Software Implementation Issues	10/23: more Impl. / Refactoring Paper # 2 rgh. draft due
11	10/28: more Refactoring	10/30: Risk Management
12	11/ 4: Intro. to Software Testing	11/ 6: more Testing Paper # 2 final version due
13	11/11: Professional Behavior	11/13: Introduction to the CSC 492 Project
14	11/18: Exam Review; more about CSC 492 Project	11/20: [EXAM # 2]
15	11/25: Mock Interviews Scheduled through SSC	11/27: *** THANKSGIVING BREAK *** NO CLASS ***
16	12/ 2: Team Assignments for CSC 492	12/ 4: Final Exam Review

Professor: Blase B. Cindric

Phone: (330) 829 - 6649

E-mail: cindricbb@mountunion.edu

Office: KHIC 048

Office Hours: Monday & Wednesday 4:05 - 4:45 pm,
or by appointment

Accessibility Support Statement:

Any student with a documented disability needing academic accommodations is requested to speak with the Director of Accessibility Support Services (330 – 823 – 7372) and the instructor, as early in the semester as possible. All discussions will remain confidential.

Course Goals:

This course introduces students to the knowledge of how large-scale software products are developed in the industry, as well as estimation techniques and project management logistics.

Course Objectives:

Students will:

- become familiar with Software Engineering terminology and principles
- be able to articulate Management Fundamentals and Software Development Fundamentals in a Software Engineering project
- understand the software development life cycle and various models for producing software systems
- demonstrate knowledge of requirements gathering and specification
- know the value of planning and estimation in a large-scale project environment
- learn generally-accepted principles of the software engineering discipline
- identify different software design levels, models and tools, and use the tools to craft designs for sample problems
- be able to identify risks in a software project and propose ways to mitigate the risks using various strategies
- analyze real-world case studies for examples of good and bad practice in software development
- participate in occupational or graduate school interviews with a completed resume
- be able to state the areas of study that characterize their major discipline