

# Minnesota State College Southeast

## COMC 2754: Computer Careers Capstone Project

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 2

Lab Hours/Week: 2

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Students will work in groups to design, develop, and implement business applications. Students will determine business requirements, design database tables, create UML class diagrams, design user interfaces, estimate time lines and costs, and select development and user tools. Following the project design phase, students will implement the project using various technologies including: databases, queries, programming languages, web pages/servers, content management systems (CMS), source version control. (Prerequisite or concurrent: COMC 2749) (3 credits: 2 lecture/1 lab)

**B. COURSE EFFECTIVE DATES:** 09/25/1998 - Present

**C. OUTLINE OF MAJOR CONTENT AREAS**

## **D. LEARNING OUTCOMES (General)**

1. Analyze business problems
2. Participate in project planning sessions
3. Write user stories/use cases
4. Identify user requirements
5. Plan solution design
6. Communicate/collaborate with team members
7. Estimate time lines and cost
8. Define processing requirements
9. Diagram proposed solution
10. Design data structures
11. Write program specifications
12. Determine security requirements
13. Design system test plan
14. Develop implementation plan
15. Analyze program specifications
16. Diagram program flow
17. Access technical manuals
18. Prioritize system features
19. Design user interface
20. Identify problem domain classes
21. Design system interactions
22. Prepare operation documentation
23. Prepare user documentation
24. Assess project-related personal accomplishments
25. Determine project-related personal goals
26. Demonstrate team project reliability
27. Configure application data sources
28. Create application report forms
29. Create database queries
30. Create project source documents
31. Create business application programs
32. Debug application programs
33. Test application programs
34. Perform code review
35. Manage multi-programmer project
36. Create application documentation
37. Submit progress reports
38. Utilize Git source control
39. Use iterative development process
40. Demonstrate professional attitude

## **E. Minnesota Transfer Curriculum Goal Area(s) and Competencies**

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted