

FSU CURRICULUM FILE SYLLABUS

DATE APPROVED _____ (COMPLETED AT UNIV LEVEL)

COURSE PREFIX/NUMBER: CEN4YYY

REPEAT CODE: 00

COURSE TITLE: Software Engineering II

PRE OR COREQUISITES: CEN4XXX(new), STA4442

COURSE OBJECTIVES: (Do NOT use the course description.)

At the end of the course, the student will:

- 1. Define design specifications for software development**
- 2. Recognize and use selected design paradigms**
- 3. Compute design metrics**
- 4. Define selected design architectures**
- 5. Define and design Human computer Interfaces**
- 6. Define and develop software components**
- 7. Use UML as a template for writing software**
- 8. Adhere to software coding Standards**
- 9. Test software for both user and developer**
- 10. Deploy software in selected environments**
- 11. Use configuration management tools.**

OBJECTIVES SHOULD BE BROADLY STATED TO ALLOW FACULTY DIFFERENCES AND ALLOW CHANGES IN MODE OF DELIVERY. ENOUGH DETAIL SHOULD BE GIVEN TO DISTINGUISH FROM OTHER COURSES IN ASSIGNMENT OF A SUS COURSE NUMBER. COMMITTEE APPROVALS ARE REQUIRED FOR A CHANGE IN OBJECTIVES.

GIVE BRIEF OUTLINE OF TOPICS TO BE COVERED (NO DATES):

- 1. Software design principles, ethical considerations, paradigms, metrics, architectures**
- 2. Software architectures and architectural patterns**
- 3. Distributed Systems, middleware and frameworks**
- 4. Human computer Interfaces (HCI)**
- 5. Component Design: UML class diagrams, database design, use cases, sequence diagrams, design patterns, metrics for component design**
- 6. Coding and reuse: programming environments, configuration management, refactoring**
- 7. Software Testing paradigms and techniques: unit, use-case, scenario, system, functional, acceptance, integration, white-box, black-box**

EVALUATION CRITERIA. CHECK ONE (CHANGE IN EVALUATION CRITERIA REQUIRES THE DEPARTMENT TO SUBMIT A NEW SYLLABUS FOR THE FILE)

EXAMS ONLY (THE NUMBER AND WEIGHT OF EACH TO BE REFLECTED ON THE STUDENT SYLLABUS)

EXAMS AND OTHER (SUCH AS LAB REPORTS OR ASSIGNMENTS, TERM PAPER OR WRITTEN PROJECT, ORAL PRESENTATION; THE WEIGHT OF EACH TO BE REFLECTED ON THE STUDENT SYLLABUS.

NO EXAMS - ONLY ASSIGNMENTS (TO BE DESCRIBED CLEARLY ON THE STUDENT SYLLABUS)

