

FSU CURRICULUM FILE SYLLABUS

DATE APPROVED _____ (COMPLETED AT UNIV LEVEL)

COURSE PREFIX/NUMBER: CEN 4010

COURSE TITLE: Software Engineering Principles and Practice

PRE OR COREQUISITES: COP 3331 REPEAT CODE: 00

LIST COURSE OBJECTIVES:

- At the end of this course, the student should be able to:
- Demonstrate the procedure of converting a valid software design into efficient code
 - State the central themes involved in The Software Crisis
 - Apply the concepts of Software Process and Model
 - State the requirements for efficient Project Management
 - Execute the needed steps in Software Design: Requirements, Specification, Architectural Design, and OOD
 - State the steps involved in Program Verification and Validation
 - Execute a thorough Software Test
 - Apply the procedures for Software Quality Assurance and Cost Estimation
 - State the steps involved in Software Process Improvement
 - Identify issues involved with Legacy Systems, Re-engineering, and Configuration Management

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):

Topic
Introduction to Software Engineering
Critical Systems
Software Processes
Project Management
Software Requirements
Requirements Engineering
System Models
Formal Specifications
Distributed Systems
Application Architecture
Object Oriented Design
User Interface Design
Rapid Software Development
Verification and Validation/Testing
Managing People

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)