

APPROVED

FSU Curriculum File Syllabus

Date Approved _____ Course Number (when available) COT 4225
(to be filled in at Univ. level)

Course Title Formal Methods in Software Engineering

Pre or co-requisites COP 3330 and MAT 3xxx Repeat code 00

Course objectives: (Objectives should be stated broadly enough to allow for individual faculty differences and for changes in mode of delivery. However, enough detail should be given to distinguish from other courses and allow assignment of a SUS common course number. **Committee approvals are required for a change in objectives**).

An understanding of the theory and use of formal methods in software engineering, including Verification, Specification, and Concurrency

Brief outline of topics to be covered (without dates)

- 1. Verification (natural deduction, invariant assertions, arrays, procedures, abstract data types, and program development); Anna**
- 2. Specification (state-machines, Algebraic models, abstract models); Larch, VDM, and Z**
- 3. Concurrency (petri nets, temporal logic); CSP1, Occam**
- 4. Practicalities (life-cycle issues, standards, industrial use)**

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 report, and 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)

For approvals – attach a syllabus to be distributed to students. It must state in writing: *an academic honor code statement* (which may refer students to the handbook) and a *statement satisfying ADA*.