CSE 403 Software Engineering

Monday, Wednesday, Friday, 10:30 - 11:20 FIS 201 (note new room)

Thursday 12:30 - 1:20 MEB 248 (Section)

1 What is Software Engineering?

Software engineering is the design, development, and use of software to solve real-world problems.

A software engineering course is the bridge between the rest of the CSE curriculum and the application of what you've learned to the practice of the software engineering profession.

2 What will CSE403 students do?

Students in CSE403 will:

- design and write programs well
- effectively read and modify existing code
- employ prototyping and other risk-reducing techniques
- use tools to address software engineering problems
- evaluate various design options and make good design decisions
- interview users and gather requirements to build software people actually want

and perform a variety of other activities.

These activities will be accompanied by lectures and readings. During the quarter, students will produce a binder containing their work. In the past, students have taken well-polished binders to job interviews as examples of the high-quality, practical work that they can do.

3 How can you succeed in CSE 403?

CSE403 is a course where you learn by doing. Everyone in the class can do well, as long as they keep up with the course material and keep trying out the things we discuss in class. Attendance in class is required unless otherwise specified.

The textbook for this course, *The Pragmatic Programmer*, is broken up into Topics. Expect various Topics to be assigned regularly. There may also be additional readings which will be handed out in class. You are expected to do all assigned reading before coming to class.

There will be two types of Assignments: Question Sets and Labs. There is also a Course Project, with 2 milestones: an Evolutionary Prototype and a Final Submission. Finally, a copy of all your work will be

maintained in a Binder. At the end of the course, you will turn in your Binder, which will have as its last entry a retrospective about what you have learned from the course.

The *TENTATIVE* grading breakdown is as follows: Question Sets (20%), Labs (40%), Evolutionary Prototype (20%), and Final Submission/Binder (20%). The instructor reserve the right to add exams and quizzes if they are necessary.

The project will be done in groups. At the end of the quarter, your group members will be given the opportunity to evaluate your performance in the group. This information will be considered when computing your final course grade. Many of the labs will also be done by project groups.

4 Tentative Syllabus For Quarter

- Code Comprehension and Modification
- The Pragmatic Software Engineering Approach
- Figuring Out What Your User Wants
- High-Level Design Decisions
- Low-Level Design Decisions
- In-Class Presentation of Progress Reports
- Testing and Implementation Issues
- Conferences Between Instructor and Project Groups

Deadlines Worth Knowing:

- February 20th, 2002: Evolutionary Prototype Due
- March 18th, 2002: Final Project Submission and Binder Due

Due dates for other homeworks will be scattered regularly throughout the quarter.

5 Ethics

Cheating and plagiarism will be treated very harshly. Assignments indicated as "individual" should be completed on your own. Both individual and group work is expected to be original. You will be told when you are allowed to use outside resources such as the web. When in doubt, PLEASE ask.