CSE 490c (CSE 303)

Concepts and Tools
for Software Development

Goal: novice programmer $\Rightarrow$ knowledgeable developer

- Understand and control
  (and take responsibility for)
  - operating system
  - development environment
  - program's resources
- Know how to work in teams
- Know testing, design strategies
- Be aware of impacts on society
- Be self-reliant

Tentative outline

- Unix, advanced cmds, scripts: 1 week
- Dev. tools, group programming: 1 week
- Testing, specifications: 1 week
- C/C++: 3 weeks
- Other dev. environments: 1 week
- Design patterns: 1 week
- Requirements, UI design: 1 week

Homework and projects

- Roughly weekly
- Some exercises
- A group project
  - A C service
  - Scripts, development tools
  - Testing & design & documentation parts

"Section"

- Friday will often be different
  - Discussion & debate on societal impacts of computer systems
    - Contribute your clippings
  - Group project work & meetings
  - Code reviews
  - Guest lectures
    - Contribute your knowledge!

Textbooks

- C++ for Java Programmers
- Design Patterns
- The Pragmatic Programmer

Survey on background

- New major?
- Unix?
- Java?
- C/C++?
- Program size?
- Development environments & tools?
- Laptop?