



Summary

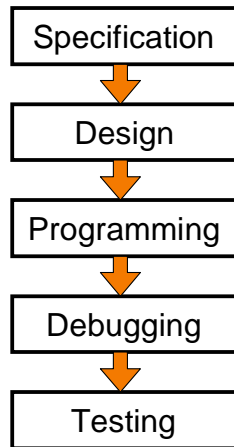
CS 217



Goals

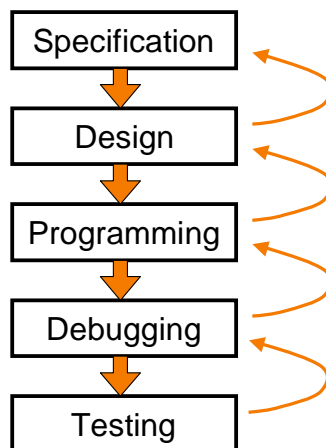
- Master the art of programming
 - Learn how to be “good” programmers
 - Introduction to software engineering
- Learn C and the Unix development tools
 - C is the systems language of choice
 - Unix has a rich development environment
- Introduction to computer systems
 - Machine architecture
 - Operating systems
 - etc.

Software in COS126



1 Person
10² Lines of Code
1 Type of Machine
0 Modifications
1 Week

Software in the Real World



Lots of People
10⁶ Lines of Code
Lots of Machines
Lots of Modifications
1 Decade or more

Major Lessons



- C programming
 - Learn modular design with interfaces and abstraction
 - Understand importance of programming style and testing
 - How is design of software different than other large systems?
- Machine architecture
 - Understand how hardware works
 - Understand how machine works
 - What are design trade-offs
 - What are possibilities? limits?
- Unix operating system
 - Understand how an OS works
 - How can we use it most effectively?
 - What will future OS look like?

Next Steps in Computer Science



- Theory
 - CS423 - Algorithms
 - CS487 - Complexity
- Systems
 - CS318 - Operating systems
 - CS461 - Networks
 - CS471 - Computer architecture
- Software
 - CS333 - Advanced programming techniques
 - CS320 - Compilers
 - CS425 - Databases
 - CS426 - Graphics
 - CS496 - Vision
 - etc.

Questions?

