

# Assignment update

- Printed version available
- Updates and clarification will be on Web page
- Keep in mind: assignments build on each other!

# The Software Process

Things to do:

- Informal Requirements: What is the problem to be solved
- Specification: What to build, how should it behave
- Design: How is it built
- Coding: Build it
- Verification and Validation:
  - Verification: Are we building the product right?
  - Validation: Are we building the right product?
- Document
- Maintenance

# Motto

**Coding: translating an existing design into a concrete programming language**

The future: coding will go away altogether!

In the meantime, look at:

- IDEs
- Litterate Programming
- Documentation generation
- Templates, code generation, etc

# The Models

- Waterfall
- Incremental
- Spiral
- Evolutionary
- Prototype
- Synchronize and Stabilize
- XP

# Capability Maturity Model (CMM)

See <http://www.sei.cmu.edu/cmm>

- Level 1. Chaos & heroics
- Level 2. Repeatable - Basic Project Management
- Level 3. Defined - Process Definition
- Level 4. Managed - Process Measurement
- Level 5. Optimizing - Process Control

# Attributes

- Completeness
- Correctness
- Consistency
- Verifiability
- Modifiability
- Understandability
- User Friendliness

# Attributes - cont.

- Reliability
- Robustness
- Predictability
- Modularity
- Extensibility
- Re-usability
- Portability
- Organized