SOFTWARE and SOFTWARE ENGINEERING

- **Engineered Software**
- **Controlled Configuration Item**
- **History of Software Development**
- **Software as a Business Opportunity**
- **Problems in Software Development**

- **Myths about Software Development**
- **Approaches to Software Development**
- **Engineered Software Development Models**
- **Software Engineering Technology**

1 - 1
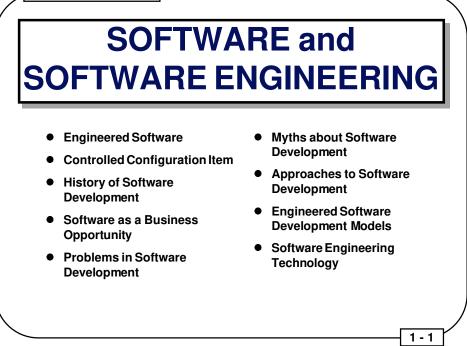
Objectives of Module 1

- Present and discuss the idea that software is much more than just code -- *engineered* software is composed of *controlled configuration items* which include documents, data, and code

- Present and discuss the history of software development, including its evolution into a business

- Present and discuss many of the problems with doing software development, particularly when there is more than one person involved

- Present and discuss many myths about software development and explain why some of these myths are fallacies

- Present and discuss several different software engineering paradigms, showing different methods for developing engineered software:

  - Classic "waterfall" method

  - Rapid prototyping

  - Spiral method

  - Fourth generation method

  - Combinations of the above

- Present and discuss some of the technologies used in the support of software engineering:

  - *Computer-Aided Software Engineering* (CASE)

  - Ada programming language