

Software Design CS-183



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Logistics

- Course objectives
• Schedule
• Textbook
• World Wide Web
• Listserv
• Grading
• Homework
• Exams
• Lab projects
• Quality assurance

Course Topics

- Object-oriented development
• OO design
• OO programming

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Course Topics

• C++ language

- Use existing classes (as in CS-182)
- Construct new classes

• Standard Library

- Strings
- STL containers, algorithms
- More detail on use

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Course Prerequisites (1)

• OO concepts

- Classes
- Objects
- Attributes
- Behaviors

• C++ basics

- Data types
- Operators
- Data objects
  - Scope, lifetime
- Expressions
- Statements

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Course Prerequisites (2)

• Functions

- Arguments
  - Formal vs actual
  - Value vs reference
- Return value
- Prototypes

• Class libraries

- Object creation
- Member function usage

• Boolean

- Values
- Expressions
  - Operators

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Course Prerequisites (3)

- **Selection**
  - if / else
  - switch
  - Conditional operator
- **Loops**
  - while
  - do / while
  - for
  - Nested loops
- **Typedefs**
- **Enumerations**
- **string class**
  - <string>

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Course Prerequisites (4)

- **Stream I/O**
  - Console
    - cin, cout
  - File streams
    - Initialization
    - EOF handling
- **Arrays**
- **STL vector**
  - Creation
  - Member functions
  - Operators
- **STL list**
- **STL sort**

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Course Prerequisites (5)

- **Software development**
  - Planning
  - Coding
  - Compilation
  - Testing
  - Iterative development
- **Internet**
  - Web access
    - Notes
    - Assignments
  - Downloading
  - ZIP handling
  - Email
    - Attachments

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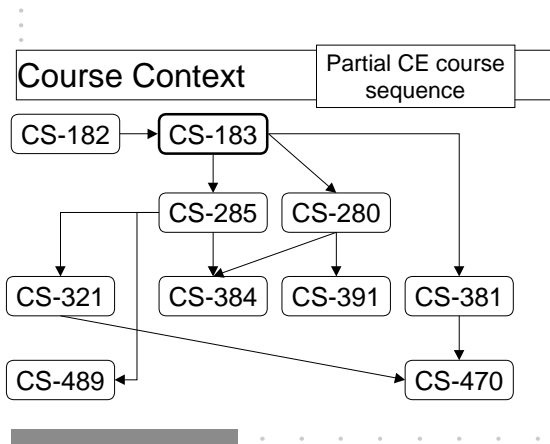
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