Syllabus: F23NadiCSC1051

1. Week 1

  # Computer Processing
  Programming Languages (slides)
  Computer Hardware (slides)
  Number Systems (slides)

  # Introduction to Java
  The Java Programming Language (video) (slides)
  Hello, World (video) (slides)
  Comments (slides)
  Program Style (slides)
  Programming Errors (video) (slides)
  Using jGRASP (slides)

  # For Reference
  The History of Computing (slides) (optional)
  Java Keywords (slides) (optional)

2. Week 2

  # Data & Variables
  Algorithms (video) (slides)
  Variables (video) (slides)
  Assignment Statements (video) (slides)
  The print and println Methods (video) (slides)
  Primitive Data Types (video) (slides)
  Constants (video) (slides)
  Shortcut Assignment Operators (video) (slides)

  # Arithmetic Expressions
  Numeric Expressions (video) (slides)
  Assignment Expressions (video) (slides)

  # For Referenece
  Operator Precedence (slides) (optional)

3. Week 3

  Increment and Decrement Operators (slides)

  # Working with Strings
  Strings (video) (slides)
  Escape Sequences (video) (slides)

  # Using the Java API
  The Java API (video) (slides)

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  Random Numbers (video) (slides)
  The Math Class (video) (slides)

  # Interactive Programming
  The Scanner Class (slides)

  # Quiz# 1

4. Week 4

  # Conditional & Control Flow
  Boolean Expressions (video) (slides)
  Boolean Operators (video) (slides)
  The if Statement (video) (slides)

  # Repetition
  Flow of Control (slides)
  The while Statement (video) (slides)
  Example: The High-Low Game (video) (slides)
  The break and continue Statements (video) (slides)
  Example: Palindromes (video) (slides)

5. Week 5

  # Data Representation
  Number Systems (slides)
  The Unicode Character Set (video) (slides)

  # Classes & Object
  Object Oriented Programming (slides)
  Objects and Classes (slides)
  Creating Objects (slides)
  The import Statement (video) (slides)

  # Quiz# 2

6. Week 6

  # Selection & more Repetition
  The do-while Statement (video) (slides)
  The for Statement (video) (slides)
  Example: Accumulating Interest (slides)
  Conditional Expressions (video) (slides)
  The switch Statement (video) (slides)
  Formatting Numbers (slides)
  The printf Method (video) (slides)

7. Week 7
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Designing Classes
Software Quality Attributes (slides)
Class Anatomy (slides)
Example: Card (slides)
The Unified Modeling Language (slides)
The this Reference (slides)
Object Equality (video) (slides)
The compareTo Method (video) (slides)
Example: Bank Account (slides)

8. Week 8

9. Week 9

Wrapper Classes (video) (slides)
Example: Data Type Limits (slides)

More Desiging Classes
Example: Dice (slides)
Encapsulation (slides)
Example: Person (slides)
Method Anatomy (slides)
Method Overloading (slides)
Collections Overview (slides)

Quiz# 3

10. Week 10

Arrays (slides)
Common Array Algorithms (slides)
Arrays of Objects (slides)

11. Week 11

Two-Dimensional Arrays (slides)
Command-Line Arguments (slides)
Lists (slides)

12. Week 12

Reading and Writing Text Files (slides)
Example: Counting Numbers (slides)
Buffered Streams (slides)

Quiz# 4

13. Week 13

The try-catch Statement (slides)
The throw Statement (slides)

14. Week 14

DL meeting on Monday. [watch the video]
THANKSGIVING

15. Week 15

Review Exceptions & File I/O; Quiz# 5