**Computer Science II**

**Topic Overview:**

1. System.out Object
   1. System.out.print()
   2. System.out.println()
2. Escape Sequences
   1. NewLine
   2. Tab
3. Variable Declaration
   1. Integer
   2. Double
4. Variable Initialization
5. Assignment Statements
6. Mathematical Expressions
7. KeyboardReader Class / Scanner Class
8. Constant/Read-Only Variables
9. Math Functions
   1. Power
   2. Absolute Value
   3. Square Root
   4. min
   5. max
10. Relational Operators
11. If-Statements
    1. Nested If-Statements
    2. Linked-If-Statements
12. Logical Operators
    1. &&, ||, !
13. While-Loops
    1. Count-Controlled
    2. User-Controlled
14. Random Numbers
    1. Random Class
    2. Math.random()
15. Nested Loops
    1. For and While
16. String Variable
    1. Comparing Strings
    2. String manipulation
17. Arrays
    1. Integer
    2. Double
    3. Looping through Arrays
    4. Two Dimensional Arrays
    5. Parallel Arrays
18. Class Structure
    1. Instance Variables
    2. Local Variables
    3. Scope of Variables
    4. Constructors
    5. Methods
19. Visibility Modifiers
    1. Private
    2. Public
    3. Protected
20. Inheritance
    1. Parent Classes
    2. Sub Classes
    3. Overriding vs. Overloading
21. Abstract Classes
22. Abstract Methods
23. Interfaces
24. Handling Exceptions
    1. Try-Catch Statements
    2. Throwing Exceptions
25. Static Variables
26. Private static helper methods