

# CSCI 135 – Fundamentals of Computer Science I

## Exam I Study Outline

- I. Computer Basics
  - A. Input and Output Devices
  - B. Main memory (RAM) vs Auxiliary
- II. Python Basics
  - A. Compiling
  - B. Python program parts
  - C. Sequential Execution
  - D. Idle Shell and Editor
- III. Variables and Data Types
  - A. Variables
    - 1. Declaration
    - 2. Assignment
  - B. Basic data types
  - C. Type Conversion
  - D. Operations on different data types
    - 1. String Manipulation
    - 2. Math Expressions
    - 3. Boolean Expressions
    - 4. Order of Operations
- IV. Conditionals
  - A. If
  - B. Format/syntax
  - C. How to use them
  - D. How to read(understand) them
- V. Loops / Iteration
  - A. while
  - B. for
  - C. Format/syntax
  - D. How to use them
  - E. How to read(understand) them
- VI. Input/Output
  - A. Screen Output
    - 1. print
    - 2. Formatted printing
  - B. Input

1. Interactive input
2. Command line input

VII. Lists

- A. Declaration
- B. Creation
- C. Initializing list elements
- D. Accessing list elements
- D. Modifying list elements
- E. Operations on Lists
  1. Slicing
  2. Copying
  3. List Comprehensions
- F. Multidimensional lists