Lecture 1 Outline

- 1. Syllabus
- 2. A computer program is a sequence of instructions. Algorithms are used by programmers to describe a program informally, and develop a program via *step-wise refinement*. <Question 1>
- 3. Hardware components and their function: CPU, Main Memory, Secondary Storage, Input Devices, Output Devices <Question 2>
- 4. Software types: system software (operating system), application software programs that users run that make the computer useful. <Questions 3 and 4>.
- 5. Stored-program concept (von Neumann architecture), Fetch-Decode-Execute cycle (instruction/machine cycle); High-level language vs. machine language
- 6. Compiled vs. interpreter languages
- 7. IDLE, Python shell, Python scripts (collection of commands in a file) <Question 5 Demo IDLE>
- 8. Interactive vs. file I/O