CSE115 / CSE503
Introduction to Computer Science I

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Office hours:
Thursday 12:00 PM – 2:00 PM
Friday 8:30 AM – 10:30 AM
OR request appointment via e-mail
Turn off and put away electronics:

- cell phones
- pagers
- laptops
- tablets
- etc.
Today

CEN demonstration project review
• representing information
• gates (and, or, not)
• language translation
  – compilation (HLL to LLL)
  – assembly (LLL to LLL)
• objects
  – properties – instance variables
  – behaviors - methods
• variables
  – type, name, value, location, scope, lifetime
  – instance and local (both parameter and non-parameter)
• variable declarations
• assignment statement
  – assignment operator ‘=’
• class definitions
  – header and body
  – instance variables
  – constructors (& methods)
• vocabulary
  – keywords (package, public, private, class, new)
  – header, body, terminator, parameter list, argument list, declaration, statement, etc.
• access control modifiers
  – public / private
• null
• graphical user interfaces
• memory organization
  – static / dynamic
  – dynamic: stack / heap
• class instantiation
  – new operator
    – allocates memory on heap
  – reference is value of new expression
• diagrams
  – object (objects, variables, references)
  – class (classes, relationships)
• relationships
  – composition/association/inheritance (generalization)/implementation (realization)
• method invocation
  – invocation record on runtime stack
  – argument to parameter assignment
• control structures
  – conditionals (if/if-else), loops (for, while, foreach)
• collections
  – ArrayList<E>, HashSet<E>
  – Iterator<E>
• design patterns: Observer, Iterator, …
• inheritance, overloading, overriding, constructor chaining, type hierarchy, Object
• primitives: binary and two’s complement representations
• and other misc. topics (incl. search)