

University of Illinois at Urbana-Champaign
Dept. of Electrical and Computer Engineering

ECE 220: Computer Systems & Programming

Constructors and Destructors

1

Class Specifies Subroutines for Initialization & Teardown

Specific **subroutines**

- **for initialization and teardown**
- **of class instances**
- can be **specified in the class' definition.**

2

Constructor is Always Called for an Instance

A **constructor** is a subroutine

- for **initialization of an instance**,
- and is **always called** for instances.

When is a constructor called?

Automatic variables: at point of **declaration**

Static variables: **before main**
(order is difficult to control)

Dynamic variables: at point of **allocation**

3

Constructors Share a Few Common Aspects

Common aspects of constructors:

- **name:** the **name of the class**
- **return type:** **none** (not **void**)
- **overloading is allowed**
 - (multiple versions can be defined)
 - compiler tries to choose based on arguments passed

4