

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

ECE 220: Computer Systems & Programming

Access Control

Variables of Class Type are Called Instances and Objects

A **variable** (or field) **with a class as its type**, such as

```
MyClass m;
```

is called an **instance of MyClass**.

Instances are also called **objects**.

C Entangles Information Hiding with File Management

In **C**,

- **information hiding**
- **gets entangled with file management.**

Why?

C offers few choices for scope:

- compound statement / function,
- file, or
- global.

Scope and Access Rights are the Same in C

Scope (visibility) implies access rights in C.

If a **C** compiler **recognizes a variable** in scope,

- the code being compiled
- **can modify that variable by name.**

If a **C** compiler **knows a structure definition**,

- the code being compiled
- **can use the fields of the structure by name.**

If a **C** compiler **recognizes a function** in scope,

- the code being compiled
- **can call that function by name.**