

Exam 2 in Lecture Room Friday, 5/11/18 at 10:30am in LC-F1 and LC-F4

- If your last name starts with A-L, please take final exam in LC-F1
- If your last name starts with M-Z, please take final exam in LV-F4

From <<https://www3.cs.uic.edu/bin/view/CS211/CS211S18>>

C++ Classes

this pointer

List l1;

```
// C style using structs  
operation ( l1, nextParameter, ... );
```

```
// C++ style using classes  
l1.operation ( nextParameter, ... );
```

access modifiers
- private, public

private class members are only accessible inside of the class.

for private data members, often a setter method is written
- the setter method **MUST** validate the parameter data before storing
into the data member

Constructors - syntax special methods

inheritance - adding/expanding data/operations to an existing class

Point2d inherited by Point3d

```
class Point2d
```

```
{  
  private:  
    int x, y;
```

```
  ....
```

```
}
```

```
class Point3d : public Point2d
```

```
{  
  private:  
    int z;
```

```
  ..
```

```
}
```

composition - a class is being used as a data member for another class

```
class Segment
```

```
{  
  private:  
    Point2d endPoint1;  
    Point2d endPoint2;
```

```
  ...
```

```
}
```

```
class Node
```

```
{
```

```
private:  
    int  elem;  
    Node* next;  
    ...  
}
```

```
class List  
{  
private:  
    Node* head;  
    ...  
}
```