

# DASL 130 – C Programming Course

## Lecture 6

# Common Libraries

stdbool.h

Provides:

- true constant = 1
- false constant = 0
- bool type
- Use with logical operators

# Random Numbers

- Random numbers are pseudorandom - there is always an algorithm behind the generation
- `#include <stdlib.h>` (gives you the `rand()` and `srand()` functions)
- `#include <time.h>` (gives you the `time()` function)

# Random Numbers

- `srand( int )`
  - set the seed – number used as basis for sequence of random numbers
  - same seed = same sequence of numbers
  - default seed is '1'

For more random randomness set the seed by:

- `srand( time(NULL) )`

`rand()` returns in the range from 0 to `RAND_MAX`

# Making A Library - Header

Header File (*filename.h*)

- Start with:

```
#ifndef _ID_
```

```
#define _ID_
```

- Add prototypes for all functions in *filename.c*
- If you have type definitions put them in the header
- End with `#endif`

# Making A Library - Source

Source File (*filename.c*)

- Start with:

```
#ifndef _ID_
```

```
#define _ID_
```

- Add all function definitions (not prototypes) to the middle
- End with `#endif`