ENGR 1120 Lecture Chapter 1 - Command Window Input and Output

- **basic command window output ;**

  - by default each line of code (expression or assignment) will print to the C.W.

  - however the *semicolon* is used to *suppress* the output

  - **example:**

    ```
    >>x=10;
    ```

  - the default output can be configured using the format command

    ```
    >>format compact
    >>format long
    >>format loose
    >>format short
    ```

    note: I will not be using the *format* command, you can look into if you wish

- **2 new useful functions**

  - the *fprintf()* **function**

    * similar to the C library function

    * complete control of the *command window output*

    * also used with *file output*, formatted **print** to **file**

    * results in a formatted *string*, character level control

    * **example:**

    The lines below goes in your code.

    ```
    my_var=97.563;
    fprintf('The value is %f ',my_var)
    ```

    The following output will appear in the command window.

    ```
    >>The value is 97.563
    ```

    Can you tell what happened?

– **more about the** *fprintf()* **function**

`'`**%** *feild width* **.** *precision* `f` `'`

∗ *Data Type* of the value

∗ *Field Width*

∗ *Precision*

- escape sequences and the *fprintf()* function

  * `\a`

  * `\b`

  * `\n`

  * `\r`

  * `\t`

  * `\\`

  * `\'`

  * `\''`

– **the** *input()* **function**

  ∗ adds a simple user interface to your program

  ∗ you type *command window input*

  ∗ the input can be stored as a variable

  ∗ **example:**

  The line below goes in your code,

  ```
  x=input('Please type A number ')
  ```

  and then the text will appear in the command window.

  ```
  >>Please type A number
  ```

  Now the user can type a value (shown in red below) followed by the *Enter* key.

  ```
  >>Please type A number 42.7
  ```

  Now you can see the value 42.7 is stored in the variable x.