

## CECS 174 – Lecture 6 – Formatting Output

Sometimes our output doesn't display the way we want it to. Here is a special print function that lets us specify exactly how the data should be displayed. This print function has special parameters and flags that let us control the output. These parameters and flags go within the double quotes but don't show up when displayed.

```
%[argumentIndex$][flags][width][.precision]conversion
```

Conversion Code	Conversion Type
d	Integer
f	Fixed Floating Point
s	String
c	Character

Flag	What the flag does
-	Left alignment
,	Shows commas in larger numbers

```
double amt = 12.3;
int num = 10;

System.out.printf("Amt: %5.2f", amt); // Amt: 12.30
System.out.printf("Num: %8d", num);   // Num:      10
```

There are also useful characters that can be used in print() and in printf(). \n displays a new line, \t tabs over, \\ displays a \, \" displays a ", \' displays a '. You may also use the \u to display any of the Unicode characters that are in Appendix B.

### Decimal Formatting:

```
import java.text.DecimalFormat;

public class Format{
    public static void main(String[] args){
        DecimalFormat df = new DecimalFormat("0.0");
        double num = 1.23456789;
        System.out.println(df.format(num)); //1.2
    }
}
```