

# **EECE.2160: ECE Application Programming**

Summer 2017

## Lecture 1: Key Questions

May 15, 2017

1. Describe the key components of the basic C program shown below. What is the output of this program?

```
#include <stdio.h>
int main()
{
    printf("Hello World!\n");
    return 0;
}
```

2. What is the output of each of the following variations on the basic program shown in Question 1?

a.

```
#include <stdio.h>
int main()
{
    printf("Hello");
    printf("there");
    printf("World!");
    return 0;
}
```

b.

```
#include <stdio.h>
int main()
{
    printf("Hello\n");
    printf("there\n");
    printf("World!\n");
    return 0;
}
```

c.

```
#include <stdio.h>
int main()
{
    printf("Hello\nthere\nWorld!\n");
    return 0;
}
```

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5. Briefly explain valid character constants.
6. What are the four key characteristics of a variable?
7. What rules must be followed when naming variables?
8. Show how variables are declared and how values are assigned to them.

9. **Example:** What values do w, x, y, and z have at the end of this program?

```
int main() {  
    int w = 5;  
    float x;  
    double y;  
    char z = 'a';  
    x = 8.579;  
    y = -0.2;  
    w = x;  
    y = y + 3;  
    z = w - 5;  
    return 0;  
}
```

10. Use the following space for notes on the Visual Studio demonstration. (Note that a detailed description of how to create a new project is included with the Program 1 specification.)