



# Calling a Function

**ELEC1006: ENGINEERING COMPUTING**

# Calling a Function

- To call a function, use the function name followed by `()` and `;`  

```
printHeading();
```
- When a function is called, a program executes the body of the called function.
- After the function terminates, execution resumes in the calling function at the point of call.

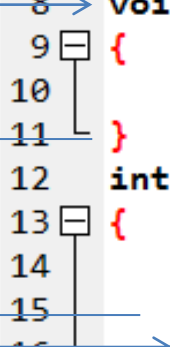
# Example

```
1 #include <iostream>
2 using namespace std;
3 //
4 // This is an example with 2 functions
5 // The functions in this example are
6 // functionExample and main
7 //
8 void functionExample()
9 {
10     cout << "In functionExample" << endl;
11 }
12 int main()
13 {
14     cout << "Begin in function main" << endl;
15     functionExample(); // call to functionExample
16     cout << "Back in function main" << endl;
17     return 0;
18 }
```

```
Begin in function main
In functionExample
Back in function main
```

# Flow Control in Example

```
1  #include <iostream>
2  using namespace std;
3  //
4  // This is an example with 2 functions
5  // The functions in this example are
6  // functionExample and main
7  //
8  void functionExample()
9  {
10     cout << "In functionExample" << endl;
11 }
12 int main()
13 {
14     cout << "Begin in function main" << endl;
15     functionExample(); // call to functionExample
16     cout << "Back in function main" << endl;
17     return 0;
18 }
```



```
Begin in function main
In functionExample
Back in function main
```

# Calling Functions

- `main` can call any number of functions.
- Functions can call other functions.

```
int main()  
{  
    func1();    // Call func1()  
}  
void func1()  
{  
    func2();    // Call func2()  
}
```

# More info

- [1] cplusplus.com: Functions  
<https://cplusplus.com/doc/tutorial/functions/>
- [2] learncpp.com: 2.1 – Introduction to Functions  
<https://www.learncpp.com/cpp-tutorial/introduction-to-functions/>