

GE U111 Engineering Problem Solving & Computation
General Program Structure with Functions–Revised
February 11, 2004

```
//      Your name
//      GE U111–Section X
//      Date

//      State what the program does (what are its inputs and/or outputs).

#include <    >          // include all appropriate header files
#include <    >
...
using namespace std;          // always use this statement with any include statements

#define CONSTANT1 value1     // define any constants; use all-CAPS
#define CONSTANT2 value2     // these values are accessible to all functions below
...

int func1(int v1, float v2, int v3);    // DECLARE any functions that will be invoked
double func2(void);                  // function declarations are terminated with semicolons!
void func3(void);
...

// *****
int main()                          // PROGRAM BEGINS AND ENDS IN MAIN FUNCTION
{
    variable declarations;          // generally, most function invocations occur here...
    executable statements;         // Start with any variable declarations and assignments
    ....                          // body of program goes here
    return 0;                      // DOCUMENT YOUR CODE (i.e., include comments as needed!)
}
// *****

int func1(int v1, float v2, int v3)   // function DEFINITION – same prototype as declaration with NO “;”
{
    local variable declarations;
    executable statements;
    return (exprn);                // note: here exprn must be of type int
}

double func2(void)                  // function DEFINITION – same prototype as declaration with NO “;”
{
    local variable declarations;
    executable statements;
    return (exprn);                // note: here exprn must be of type double
}

void func3(void)                    // function DEFINITION – same prototype as declaration with NO “;”
{
    local variable declarations;
    executable statements;
    return (void);                 // note: here we uses void because func3 does not return any values
}
...

```