

# Short Program 7: Diffuse lighting

Due: Sunday, Oct 30 at 11:59 pm

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## Overview

In this assignment you will create *one* new modules: `illum.c`. This module will contain the functions described in the notes regarding diffuse illumination. **You must add the proper function prototypes to your `rayhdrs.h`.**

You should enable

```
#ifdef DBG_DIFFUSE
```

to produce the output required. You will also find that Dr. Westall's sample code is *broken* whenever it lamely attempts to print *objid*'s. Thus you should fix that too!

Please note that *sp7 is not a comprehensive test* for diffuse illumination. For one thing, it does not test for self occlusion and it only uses one light. For mp2 you will need to be sure both of these work.

## Other resources

You should use the main program `sp7main.c` that is found in the `assns/sp7data` directory, but you must provide all other required components.

If you build `a.out` and run (using the `bash` shell)

```
a.out 400 300 1> sp7.1l 2> sp7.out
```

Your output should match what is in the `sp7.out` file in the `sp7data` directory. **The `sp7.1` file *must* contain NO data.**

## How to submit your program:

You must turn in a *makefile* and all `.c` and `.h` files that are needed to build the program. I recommend that you submit *all* components and ensure that running `make` in the submit directory creates a functional program.

Copy them to the usual location: `jmw:/local/jmw2/215/sp7`