

## **SC443 Computer Game Programming Assignment #02: Night Life in NTU**

**[Due Friday, August 15, 23:59PM]**

NTU looks beautiful during the day as well as in the night. In this assignment, you will create a simple scene with illumination that mimics the appearance of NTU during night.

The main points of this assignment are to:

- To construct a simple 3D world using polygons (approximately 50 polygons).
- Render the 3D world using illumination (at least 3 light sources).
- Add realism using lightmaps.
- Textures are optional not mandatory.
- Provide simple navigation (left, right, front, back)

### **The activities you will engage in**

- Select a scene on NTU campus that you want to represent (some examples are):
  - bus shelter
  - roof-top walk way
  - sheltered walk way
  - car park
  - road with street lights
  - corridors in North/South spines
  - canteen A, B, C
  - hall corridors
  - playground
  - NTU entrances
  - Road intersections
  - ...
- You may select any scene on campus, it can be different from the one listed above as well.
- Write 1 page short description of your scene and the rendering used, and upload the html file to your game web page.
- The short description can also include snapshots and animation clips of the rendered scene (for example you can use Alt-PrtScreen to capture snapshots of a window, or use SnagIT from <http://www.techsmith.com/> to capture snapshots/movie clips).
- From you assignment #02 html file, please provide a link to a zip file that contains (README, src files, exe file, lightmaps).

## Sample Code

Sample Code 1 (OpenGL)

<http://www.gamedev.net/reference/programming/features/oglex/demo.zip>

<http://www.gamedev.net/reference/programming/features/oglex/page6.asp>

Sample Code 2 (OpenGL)

[http://www.home.no/apron/english/tutorials/gl/gl\\_lightmap.zip](http://www.home.no/apron/english/tutorials/gl/gl_lightmap.zip)

<http://www.home.no/apron/english/article/gl/lightmap.htm>

## Grading

- Your assignment #02 will receive up to 100 points based on the following factors:
  - Choice and Representation of your scene (fewer number of polygons the better)
  - Quality of rendering
  - Presentation of the 1-page short description for assignment #02

## Administrative statement

This is an *individual* assignment. I encourage you to talk to others about the general nature of the assignment and ideas about how to pursue it. However, the writing of code and the work behind it must belong substantially to you. If any person besides you contributes in any significant way to the assignment, you must credit their work in your review. Similarly, if you include information that you have gleaned from other published sources or web pages, you must cite them as references.