

COSC 829: Advanced Virtual Reality Systems
Fall Semester 2015
Instructor: Dr. Sharad Sharma
Assignment 1: Course Curriculum Module

This project will span a period of 2 weeks and is meant to re-familiarize you with the WorldViz Vizard IDE. This assignment will get you prepared for the final project.

Please submit your assignment by: **9/17/2015**

Submission:

Submit your code files and all scene assets in a single zipped file (as a *.zip) and submit the file on blackboard. Example: **Assignment_01_sharma.zip**

Description:

In this assignment you will create a **VR course module** environment. You are expected to create an entire virtual environment that combines 3D Studio Max models and WorldViz Vizard coding. The goal of this assignment is to create course curriculum module for computer science and mathematics students. The aim is to create Virtual Reality course educational curriculum module with more inquiry based problem-solving activities and hand-on experiences based on Virtual and Augmented Reality. Here are ideas for the course modules: arrays, linked list, memory management, trees, binary search, stacks, and queues. The module should be able to clear the concepts of the topic and could be used by the instructor as a supplement while teaching the class/course. You will be required to do the following:

1. Modeling:

- a. You can use freely available 3D models over the internet.
- b. You have to use textures
- d. You must use polygonal modeling or convert non –polygonal objects to a polygonal object in order to export from Max to WorldViz Vizard.
- e. Export your model from 3D Studio Max into Vizard using the OSG/IVE exporter.

2. Programming:

- a. You can utilize any scripts in tutorials and examples
 - Utilize keyboard or mouse callbacks
- b. Add a sky with environmental map, add audio file (Refer "Using actions example.py")

(Refer "teacher in a book" for vizard.)

Requirements:

- Should have a **menu** for the concepts to be covered
- Counter for **timer** or counter for points
- Should show the **code** (C++ or Java code) as a reference
- Use **gaming metaphor** for the course module.

Reference

Check course modules at the VR Lab link: <http://cs.bowiestate.edu/~sharad/vrlab/course.html>