Syllabus for Computer Graphics

"A technique drawing paintings not with brushes but with programming languages based on engineering principles"

1. Description

This course aims at learning some fundamental principles of Computer Graphics with emphasis on comprehension of critical algorithms as well as on techniques of application developments. The class attendees are expected to study essential computer graphics concepts and to do programs in well-known API, OpenGL. The class is designed not only to introduce theoretical aspects but also to be familiar with programming skills, in which OpenGL is mostly used for practice of implementation. The practical approach definitely helps attendees be more understandable as well.

2. Instructor: Prof. CHIN, Seongah

3. Contact points:

- 031-467-8198, solideochin@gmail.com, http://xicomlab.re.kr
- College of Engineering #517
- Office hour : Tuesday and Wednesday 14:30 -15:30

4. Class Meeting: Tuesday or Wednesday @Room 304

5. Prerequisite: Discrete Math. Data Structure & Algorithm, C or C++

6. The Required Text Book

Title: OpenGL로 배우는 컴퓨터그래픽스
Author: 주우석
Publisher: 한빛미디어

7. Reference

We recommend (do not require) the following books

- Interactive Computer Graphics A Top-Down Approach with OpenGL (Fourth Edition), Edward Angel, Addison Wesley
- Computer Graphics principles and practice, Foley etc., Publisher : Addison-Wesley
- OpenGL Super Bible

8. Grading Policy

The course grade will be computed by the following categories (which is subject to change). The portion of each category is shown in the following criterion.

1. Midterm Exam: 40%
2. Final Exam and: 40%
3. Homeworks: 10%
4. Attendance and Class lab. assignment: 10%

9. Homework Policy

Homework will be given in the class. It will be due in the class of the next week. In other words, you should complete homework within one week. The following rules will be applied to homework grading.

1. Late Homework will not be accepted.
2. Cheating or copying will be discovered.
3. Class lab. assignment will be given in the class, which needs to be collected and graded on spot.

10. Attendance Policy

1. Marking for attendance sheet through Attendance App will be totally responsible for students.

2. One absent will deduct 1 point from the total 10 pts.

3. A student must hand in an absent certificate within one week due to any reasons.

- A late certificate will not be acceptable.

11. Tentative Course Outline

The class includes fundamental techniques of computer graphics. The primary topics covered in the class are shown below :

1. Introduction
2. Color theory
3. API, OpenGL
4. Input, Window viewport
5. Geometry
6. Modeling transformation
7. Projection

12. Lecture Notes will be distributed in the class

"The venue science associates with art"