

CS6366 - Computer Graphics

Fall 2016

1. INSTRUCTOR: Dr Kang Zhang, Room: ECSS 3.227, Phone: 972-883-6351, kzhang@utdallas.edu

2. CLASS TIME: 10:00 - 12:45 pm, Friday, in ECSS 2.306

3. OFFICE TIME: 8:30-9:30 am, Fridays

4. SYLLABUS:

- 1 Introduction to Computer Graphics (Pixels and Coordinate Systems) (*Chap.1*)
- 2 Algorithms For 2D Drawing Primitives (*Chap.4*)
- 3 Applied Geometry and Geometrical Transformations (*Chap.2+3*)
- 4 Perspective in 3-D (*Chap.5*)
- 5 Hidden-Line Elimination (*Chap.6*)
- 6 Hidden-Face Elimination (*Chap.7*)
- 7 Fractals and Self-Similarity (*Chap.8*)
- 8 Other topics, e.g. colour theory (*Notes*)

5. TEXT AND REFERENCE BOOKS:

Text: Leen Ammeraal and Kang Zhang, *Computer Graphics for Java Programmers*, 2nd Edition, John-Wiley & Sons, 2007.

Reference: F.S. Hill, Jr, *Computer Graphics Using Open GL*, 3rd Edition, Pearson, 2006.

6. ASSESSMENT:

Grades will be determined by 5 assignments, a mid-term exam, and a final exam. Their weightings are as follows:

Assignments:	40%	
Mid-term:	30%	10:00 pm, Friday, 14 October 2016
Final:	30%	10:00 pm, Friday, 2 December 2016

A student must perform satisfactorily in **both** the assignments and the examinations in order to pass the course.

7. GENERAL RULES:

- Cheating will not be tolerated. Those who are caught on cheating will be subject to the university's discipline code.
- There will be no supplementary exams. Exceptional cases, such as illness and accidents, will be handled on an individual basis (Instructor must be notified prior to the exam and proof presented – otherwise a score of zero will be given).
- Students will have one week, after the result of each assignment and after the mid-term exam is returned, to seek corrections on the grading. After that week, no changes will be made to scores. Exams will be graded by the instructor and assignments by the TA. Late assignment submissions will not be accepted.
- Project assignments are announced and also submitted through eLearning. If you are not able to attend a class, you are responsible for late submissions and missing any announcements or handouts.
- Three consecutive absences leads to one letter grade drop. Four consecutive absences lead to an F. If you decide to stop attending class, be sure to drop the course since you will not be dropped automatically.

8. Course Learning Outcomes (CLOs):

- Ability to understand coordinate systems and their transformations
- Ability to understand anti-aliasing techniques
- Ability to understand 2D drawing algorithms
- Ability to understand 3D graphics transformations
- Ability to understand hidden-line and hidden-face elimination
- Ability to understand fractals
- Ability to use Java for graphics programming