

BBM 412 - COMPUTER GRAPHICS

SYLLABUS

Instructor:

Asst. Prof. Ufuk Çelikcan

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office: Room 204 of the Dept. of Computer Engineering Building.

Textbook:

Interactive Computer Graphics: A Top-Down Approach with Shader-Based OpenGL (6th Edition)

by Angel and Shreiner:

<http://www.amazon.com/Interactive-Computer-Graphics-Top-Down-Shader-Based/dp/0132545233>

* You may purchase a hardcopy from Palme Kitabevi on Kızılay-Olgunlar.

Schedule:

| WEEK | SUBJECT |
|------|---|
| 1 | INTRODUCTION, CH1 - GRAPHICS SYSTEMS AND MODELS PT1 |
| 2 | CH1 - GRAPHICS SYSTEMS AND MODELS PT2 |
| 3 | CH2 - PROGRAMMING WITH OPENGL PT1 |
| 4 | CH2 - PROGRAMMING WITH OPENGL PT2 |
| 5 | CH3 - GEOMETRIC OBJECTS AND TRANSFORMATIONS PT1 |
| 6 | CH3 - GEOMETRIC OBJECTS AND TRANSFORMATIONS PT2 |
| 7 | EXAM I |
| 8 | CH4 - VIEWING PT1 |
| 9 | CH4 - VIEWING PT2 |
| 10 | CH5 - LIGHTING AND SHADING |
| 11 | CH6 - FROM VERTICES TO FRAGMENTS |
| 12 | CH7 - DISCRETE TECHNIQUES PT1 |
| 13 | CH7 - DISCRETE TECHNIQUES PT2 |
| 14 | EXAM II |

Grading:

Exam I (around the 7th week): 30%

Exam II (before the end of the classes): 30%

Final: Project (see details below): %40

Project:

- A project implemented in C/C++ with Shader-Based OpenGL is presented at the end of the term.
- You can choose to do the project individually or as a member of a project group. Project groups can have as many as 3 members.
- The finalized project is required to exhibit the knowledge of an array of subjects covered during the class.
- A brief proposal for the project is submitted by the project group around the 7th week of the class.
- Sample projects, project topics and subjects to cover will be demonstrated by the instructor during the first 6 weeks.
- The submissions for the project will be:
 - proposal document (10% OF PROJECT GRADE).
 - and a final project submission consisting of (90% OF PROJECT GRADE):
 - the entire project directory including source files, header files, accessory files and the compiled executable in a zip file.
 - and the powerpoint presentation of the project.