Course Syllabi

1. *Course number and name*
   COSC 5345: Computer Graphics

2. *Credits and contact hours*
   3 Credit Hours

3. *Instructor's or course coordinator's name*
   Instructor: Leonard Brown

4. *Textbook, title, author, and year*
   Interactive Computer Graphics: A Top-Down Approach with WebGL, 7th Edition, Edward Angel & Dave Shreiner, Prentice-Hall, Pearson, 2015.

   a. *Other supplemental materials*
      None

5. *Specific course information*
   a. *A brief description of the content of the course (catalog description)*
      An introduction to computer graphics stressing interactive graphics. Basic theory and applications will be covered.

   b. *Prerequisites or co-requisites*
      COSC 2336 (Data Structures and Algorithms)

   c. *Indicate whether a required, elective, or selected elective course in the program*
      Elective course for MSCS program

6. *Specific goals of the course*
   a. *Specific outcomes of instruction, The student will be able to*:
      1. Explain the difference between vector graphics and raster graphics.
      2. Explain mapping of two-dimensional objects from the window to viewport.
      3. Analyze and demonstrate two-dimensional transformations such as translation, scaling, shear, reflection, and rotation
      4. Explain with mathematical equations how three dimensional objects in the world coordinate system are mapped to a two dimensional viewport

5. Analyze transformations such as translation, rotation, scaling, reflection, and shear for three dimensional objects with homogeneous coordinate system
6. Explain the concept of viewing pyramid and projection methods such as perspective projection and parallel projection
7. Build a software system to map wire objects in the world coordinate system to the viewport to produce view of objects from multiple viewpoints
8. Explain methods for representing surfaces such as polygon meshes and parametric cubic patches

7. *Brief list of topics to be covered*
    - 2D Transformations, Window, Viewport, Clipping
    - OpenGL Graphics package and Graphics Programming Techniques
    - 3D Transformations, Projection Equations, Representation of 3D Shapes
    - 3D Surfaces-Polygon Mesh, Interactive Graphics

COSC 5345 – Computer Graphics – Spring 2022

General Information

Instructor	Leonard Brown
Office Location	Soules 315.03
Office Hours	MWF 12:30 p.m. – 1:30 p.m. (or by appointment)
Phone	(903) 566-7403
Email	lbrown@uttyler.edu
Class Time/Location	MW 2:30 p.m. – 3:50 p.m. / Soules 207

Exams: There will be two midterm exams and one final exam given for this class. All exams will be held in the class lecture room. The midterm exams will be during the regular class time. The ***tentative*** dates of the exams are:

Exam I	March 2, 2022
Exam II	April 11, 2022
Final Exam	**(See University Schedule)**

You will be notified in advance of any change in the above dates.

Grading: There are several components to the course grade totaling 1000 points. The point distribution is as follows:

Exam I	150 points
Exam II	150 points
Homework Assignments/Quizzes	400 points
Final Examination	300 points

Course grades will be assigned based on the following scale.

900-1000	A
800-899	B
700-799	C
600-699	D
599 and below	F

Late Policies: All homework assignments are due at 11:59 p.m. on the date specified in the assignment. Assignments submitted after the due date (even if it is by one minute) are considered late. There is a 10% penalty for assignments submitted late. Assignments will not be accepted after 48 hours.

Plagiarism: Unless otherwise specified, all work submitted for a grade must be completed by yourself. You are not to submit another person's work and claim it as your own. Plagiarism will result in disciplinary actions. To spare yourself accusations of plagiarism-

1. Do not show another student a copy of your work before it has been graded. The penalties for permitting your work to be copied are the same as the penalties for copying someone else's work.
2. Do not leave printouts of your work where other students may pick them up.

Information for Classrooms and Laboratories: Students are expected to wear face masks covering their nose and mouth in public settings (including classrooms and laboratories). The UT Tyler community of Patriots views adoption of these practices consistent with its Honor Code and a sign of good citizenship and respectful care of fellow classmates, faculty, and staff.

Students who are feeling ill or experiencing symptoms such as sneezing, coughing, digestive issues (e.g. nausea, diarrhea), or a higher than normal temperature should stay at home and are encouraged to use the UT Tyler COVID-19 Information and Procedures website to review protocols, check symptoms, and report possible exposure. Students needing additional accommodations may contact the Office of Student Accessibility and Resources at University Center 3150, or call (903) 566-7079 or email saroffice@uttyler.edu.

Additional Policies: http://www.uttyler.edu/academic-affairs/files/syllabuspolicy.pdf

Academic Calendar: https://www.uttyler.edu/schedule/files/academic-calendar-2021-2022-revised-july-2021.pdf

Final Exam Schedule: https://www.uttyler.edu/schedule/files/final-exam-schedule.pdf

Tentative Course Calendar

Monday	Tuesday	Wednesday	Thursday	Friday
Jan 10	11	12	13	14
17	18	19	20	21
24 Census Date	25	26	27	28
31	Feb 1	2	3	4
7	8	9 HW #1 Due	10	11
14	15	16	17	18
21	22	23 HW #2 Due	24	25
28	Mar 1	2 **Exam I**	3	4
7	8	9	10	11
14	15	16	17	18
21 HW #3 Due	22	23	24	25
28	29	30	31	Apr 1
4 HW #4 Due	5	6	7	8
11 **Exam II**	12	13	14	15
18	19	20 HW #5 Due	21	22
25	26	27 **Final Exam**	28	29