

Institute of Information Technology

Jahangirnagar University

Course Outline

Computer Graphics and Animation (ICT 4203)

Number of Credits: 3 Credits

Contact Hours: 3 hours per week

Lecture-wise course outline:

Week	Class	Course Contents		Teaching Method
01	01	Lecture 01- Basic of Computer Graphics		Class Lecture
	02	Lecture 02- Line Drawing Algorithms: Direct Use of Line Algorithm and DDA		Class Lecture
02	03	Lecture 03- Bresenham's Line Algorithm		Class Lecture
	04	Lecture 04- Bresenham Circle Drawing Algorithm		Class Lecture
03	05	Class Test- 01		Class Test
	06	Lecture 05- Midpoint Circle Algorithm		Class Lecture
04	07	Lecture 06 - Scan-Conversion: Ellipse		Class Lecture
	08	Lecture 07- Region Filling		Class Lecture
05	09	Lecture 08 - Scan-line Polygon Filling		Class Lecture
	10	Class Test- 02		Class test
06	11	Lecture 09- 2D Transformations		Class Lecture
	12	Lecture 09- 2D Transformations		Class Lecture
07	13	Lecture 10- 2D Viewing & Clipping		Class Lecture
	14	Lecture 11- Line clipping Algorithm		Class Lecture
08	15	Class Test- 03		Class Test
	16	Lecture 12- Liang-Barsky Line-Clipping Sutherland-Hodgeman Polygon Clipping		Class Lecture
09	17	Lecture 13- Three - Dimensional Transformation		Class Lecture
	18	Lecture 14- Projection		
10	19	Lecture 15- Three-Dimensional Viewing & Clipping		Class Lecture

	20	Class Test -04		Class Test
11	21	Makeup Class / Revision		
	22	Makeup Class / Revision		

Textbooks:

1. Schaum's Outline of Computer Graphics
2. Computer Animation -Algorithm and Techniques, Rick Parent

Weightage Distribution among Assessment Tools

Assessment Tools	Theory Weightage (%)
Class participation / Attendance	10%
Assignments	10%
Class tests (Best 3 Average)	20%
Semester-end Examination	60%
Total	100%

Exams and Quizzes: There will be 4 quizzes Exams and quizzes will be closed book and closed notes. No electronic devices except non-programmable calculators will be allowed during exams. Calculators cannot be shared with friends. There will be **no makeup quizzes**, as I will drop one quiz with the lowest score. If you miss a quiz, you will get zero for that. **Final exam will be comprehensive according to the ordinance.**

Assignments: Assignments are always due at the time of class on the due date. There will be several assignments throughout the semester and the lowest score will be dropped. No late submission will be accepted. To be successful in the exam, you should solve homework problems independently, although you may discuss with your friends to understand a more comprehensive picture of the problems.

Md. Mahmudur Rahman

Lecturer