Department of Computer Applications
National Institute of Technology Tiruchirappalli

1. Course Outline			
Course Title	GRAPHICS AND MULTIMEDIA LAB		
Course Code	CA 707		
Department	CA	**No. of Credits**	2
Pre-requisites Course Code	-	**Faculty Name**	Dr.Domnic Dr..V.Gayathri
Course Co-ordinator	Dr.S.Domnic		
E-mail	domnic@nitt.edu vgayathri@nitt.edu	**Telephone No.**	
Course Type	Core Laboratory Course		

2. Course Overview

The Graphics and Multimedia Laboratory is the purpose of providing working area for development of Computer Graphics and Multimedia to make students aware of the concepts underlying modern computer graphics and multimedia. This course contains line drawing algorithm, circle drawing, Algorithms for clipping, 2D, 3D transformations, developing authoring tools, demonstrating an image editing tool, Rasterization and filtering of layer.

3. Course Objectives

- To provide a comprehensive introduction to computer graphics.
- To understand contemporary terminology, progress, issues and trends.
- To learn the interdisciplinary nature of computer graphics and multimedia is emphasized in the variety of examples and applications.

4. Course Outcomes (CO)

- Ability to create interactive graphics and multimedia applications.
- Ability to implement graphics primitives.
- Ability to demonstrate geometrical transformations.
- Ability to demonstrate an understanding of the use of object hierarchy in graphics applications.
- Ability to demonstrate 2D, 3D, various features of an image editing tool.

Course Outcome (CO)	Aligned Programme Outcome (PO)											
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
Ability to create interactive graphics and multimedia applications.	M	B	B	B	M	B	B	S	B	B	B	M
Ability to implement graphics primitives.	M	M	M	M	M	S	M	S	M	M	B	M
Ability to demonstrate geometrical transformations.	M	M	M	M	M	M	M	B	M	M	B	M
Ability to demonstrate an understanding of the use of object hierarchy in graphics applications.	M	M	M	M	M	M	M	B	M	M	B	M
Ability to demonstrate 2D, 3D, various features of an image editing tool.	M	M	M	M	M	M	M	B	M	M	B	M

S = 0.6 M = 0.4 B = 0.0

6. Course Teaching and Learning Activities

Week	Topics covered
1.	Fundamental graphics functions
2.	Line drawing using Bresenham
3.	DDA line drawing algorithm
4.	Bresenham circle drawing algorithm
5.	2D transformations like Translations and Scaling and Rotation.
6.	3D transformations like Translations and Scaling and Rotation.
7.	Frame animation using multimedia authoring tools.
8.	Guide layer,Masking and onion skin using authouring tools.

Week	Topics covered
9.	Image Editing.
10.	Rasterization& filtering of layer

The assessment in this course has practical component only. The assessment in practical component has periodical evaluations, record writing, and end semester examination whose details are given in Table 8. The assessment in Practical will be done for a total of 100 marks.

S.No	Mode	Marks
1.	Regular lab exercises evaluation and Lab record preparation	50
2.	Internal exam	25
3.	External exam	25
	Total	100

8. Course Exit Survey (mention the ways by which the feedback about the course is assessed and indicate the attainment level)

- The students through the class rep may give their feedback at any time to the course co-ordinator which will be duly addressed.
- The students may also give their feedback during Class Committee meeting.
- 'Course Outcome Survey' form will be distributed on the last working day to all the students and the feedback on various rubrics will be analyzed.
- The COs will be computed after arriving at the final marks.

9. Course Policy (including plagiarism, academic honesty, attendance, etc.)

- **Plagiarism**
  The students are expected to come out with their original algorithm design and code for problems given during the class work, home work, term project, laboratory exercises, and tests/examinations. If found to copy from internet/other students, zero marks will be assigned and disciplinary action will be taken.
- **Attendance**
  100% is a must. However, relaxation upto 15% will be given for leave on emergency requirements (medical, death, etc.) and representing institute events.
- **Academic Honesty**
  i) Possession of any electronic device, if any, found during the test or exam, the student

will be debarred for 3 years from appearing for the exam and this will be printed in the Grade statement/Transcript.

ii) Tampering of MIS records, if any, found, then the results of the student will be with held and the student will not be allowed to appear for the Placement interviews conducted by the Office of Training & Placement, besides (i).

10. Additional Course Information

- The students can get their doubts clarified at any time with their faculty member with prior appointment.

For Senate's Consideration

Course Faculty

(Dr.S.Domnic)

(Dr.V.Gayathri)

Staff in Charge

for (Dr.S.Suresh)
Class Committee Chairperson

(Dr.A.Vadivel)
HoD(CA)