**MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**Outcome Based Learning**

**Course Outcomes (Revision)**

|  |  |  |  |
| --- | --- | --- | --- |
| Subject: | Computer Graphics & Multi - Media | Max Marks External | 75 |
| Subject Code: | ETCS 211 | Max Marks Internal | 25 |
| Total Credit: | 4 | **Evaluation Scheme** | |
| Contact Hours: |  | Theory/ Lab | **Theory** |
|  |  |  |

Course Objectives:

To expose the students to the following:

1. Basic graphics functions used

2. Line and circle drawing algorithms

3. Line clipping algorithms

4. Different types of projections

5. Various illumination models

6. Various image compression techniques

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| --- | --- | --- | --- | --- | --- |
| **S.NO** | **Course Outcomes** | **Unit** | **BL** | **PO** | **PI Code** |
| **ETCS211.1** | Recall the concepts of i/o devices and coordinate system and describe the concepts of computer graphics. Also demonstrate various transformation algorithms. | **I** | **1** | **1, 2** | **1.2.1, 1.6.1, 1.7.1**  **2.5.2, 2.8.1, 2.8.2** |
| **ETCS211.2** | Demonstrate and apply the concepts of line and circle drawing algorithms and explain various line clipping algorithms. Also describe the various curves like Bezier curve. | **II** | **1,2,3** | **1,2** | **1.6.1, 1.7.1**  **2.5.2, 2.5.3, 2.8.1** |
| **ETCS211.3** | Contrast and analyze the various projection techniques and illumination models. | **II** | **1,3** | **1, 2** | **1.6.1, 1.7.1**  **2.5.2, 2.5.3, 2.8.1** |
| **ETCS211.4** | Contrast various shading models and explain the concept of multimedia. | **III** | **2** | **1,2** | **1.6.1, 1.7.1**  **2.5.2, 2.5.3, 2.8.1** |
| **ETCS211.5** | Identify and apply the various image compression technique. | **IV** | **1,3** | **1,2** | **1.6.1, 1.7.1**  **2.5.2, 2.5.3, 2.8.1** |

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|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| CO1 | **3** | **3** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| CO2 | **2** | **3** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| CO3 | **2** | **3** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| CO4 | **2** | **3** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| CO5 | **2** | **3** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |

**Name of the Coordinator Ms. Kavita Saxena Name and Signature of the Subject Teachers**

**Signature 1. Ms. Deepti Gupta**

**Date of Revision of Course Outcomes 25/02/2021 2. Ms. Neetu Garg**

**3. Dr. Deepak Gupta**

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|  | **Pso1** | **Pso2** | **Pso3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** |
| **CO1** | - | 14.1.3 | - | - | - | - | - | - | - | - | - | - |
| **CO2** |  |  |  | - | - | - | - | - | - | - | - | - |
| **CO3** |  |  |  | - | - | -- | - | - | - | - | - | - |
| **CO4** |  |  |  | - | - | - | - | - | - | - | - | 12.4.2  12.5.1 |
| **CO5** |  |  |  | - | - | - | - | - | - | - | - | 12.4.2  12.5.1 |