

# Course: Computer Graphics

**Course Code:** noc21-cs97

**Session:** 2020-21

**Duration:** 8 Week

**Assessment procedures:** Weekly Assignment (25%) + proctored certification Exam (75%)

## Curriculum of the Course:

Week 1: Introduction - historical evolution, issues and challenges, graphics pipeline, hardware and software basics

Week 2: Object representation - boundary representation, splines, space partitioning

Week 3: Modeling transformations - matrix representation, homogeneous coordinate system, composition, 3D transformations

Week 4: Illumination and shading - background, simple lighting model, shading models, intensity representation, color models, texture synthesis

Week 5: 3D viewing - viewing pipeline, view coordinate system, viewing transformation, projection, window-viewport transformation

Week 6: Clipping and hidden surface removal - clipping in 2D. 3D clipping algorithms, hidden surface removal

Week 7: Rendering - scan conversion of line, circle, fill-area and characters, anti-aliasing

Week 8: Graphics hardware and software - generic architecture, I/O, GPU, Shader programming, graphics software (OpenGL)

Week 8: Plastics, Composites, nanotechnology applications

## List of students enrolled

| S. No | Name of Student      |
|-------|----------------------|
| 1     | Abdul Rahman         |
| 2     | Avinash Mittal       |
| 3     | Chandan Singh Dhaked |
| 4     | Chestha Gautam       |
| 5     | Divyanshu Pareek     |
| 6     | Ashima Gupta         |
| 7     | Isha Tripathi        |
| 8     | Manthan Jain         |
| 9     | Kanika Singhal       |
| 10    | Khushboo Rathore     |
| 11    | Komal Jha            |
| 12    | Kshitij Kumawat      |
| 13    | Mansi Pareek         |
| 14    | Bhavya Mathur        |

|    |                     |
|----|---------------------|
| 15 | Mukul Palol         |
| 16 | Dr. Pankaj Dadheech |
| 17 | Piyushi Agarwal     |
| 18 | Rashmi Dadhich      |
| 19 | Sakshi Agarwal      |
| 20 | Aayushi Sharma      |
| 21 | Shubham Agarwal     |
| 22 | Manasvini Sharma    |
| 23 | Simran Rathore      |
| 24 | Dr S R Dogiwal      |
| 25 | Garvit Tamra        |
| 26 | Kartikeya Dixit     |
| 27 | Vaibhav Bairathi    |
| 28 | Yashwardhan Gaur    |