

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | |
|-------|--|--------|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|
| | | CO6 | Operate data using charts and spread sheets. | 3 | 2 | | | | | 3 | | | | | | | 1 | | |
| SDC-1 | Skill Development Course - I (Insurance Promotion) | CO1 | List the field level structure and functioning of insurance sector and it's role in protecting the risks. | 2 | 2 | | | 2 | | | | 2 | | | | | | | |
| | | CO2 | Recall pertaining skills and their application for promoting insurance coverage | 2 | 3 | | | 3 | | | | 2 | | | | | | | |
| | | CO3 | Explain the Insurance Agent examination conducted by IRDA | 3 | 2 | | | 1 | | | | 2 | | | | | | | |
| | | CO4 | Summarize 'promoting insurance coverage practice' as one of the career options. | 2 | 1 | | | 3 | | | | 1 | | | | | | | |
| C1 | Art & Design | CO1 | Discuss on the drawing skills and conceptual skills | 2 | | | | | | | | | 3 | 1 | | | | | |
| | | CO2 | Assess and integrate color and design theories in the art | 2 | | | | | | | | | 3 | 2 | | | | | |
| | | CO3 | Apply Design theories & Art techniques in the production | 3 | | | | | | | | | | 2 | 2 | | | | |
| | | CO4 | Analyse the Shapes and Patterns of the 2D & 3D forms | 3 | | | | | | | | | | 2 | 1 | | | | |
| | | CO5 | Design artwork of sculpture and craftworks | 3 | | | | | | | | | | 2 | 2 | | | | |
| C1-P | Art & Design Lab | CO1 | Develop the drawing skills of the student to do the outdoor and indoor drawing | 2 | | | | | | | | | 2 | 3 | | | | | |
| | | CO2 | Discuss the process on clay & craftworks by conducting Seminar/Workshop. | 3 | | | | | | | | | | 3 | 2 | | | | |
| | | CO3 | Illustrate on the art and design works | 3 | | | | | | | | | | 2 | 1 | | | | |
| | | CO4 | Formulate the Fundamentals of making process | 2 | | | | | | | | | | 3 | 2 | | | | |
| C2 | Problem Solving in C | CO1 | Demonstrate the basic terminology used in computer programming | 3 | | 2 | 3 | | | | | | 3 | 1 | | | | | |
| | | CO2 | Compute programs in C language. | 3 | | 1 | 3 | | | | | | | 3 | 2 | | | | |
| | | CO3 | Use different data types in a computer program. | 3 | | 2 | 3 | | | | | | | 3 | 1 | | | | |
| | | CO4 | Compute programs involving decision structures, loops and functions. | 3 | | 2 | 3 | | | | | | | 3 | 1 | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|------|---------------------------|--------|---|-----|--|---|---|---|---|---|---|---|----|----|----|----|----|----|--|--|
| | | | | CO5 | Describe the dynamics of memory by the use of pointers and Structures. | 3 | | 2 | 2 | | | | | | 3 | 1 | | | | |
| | | CO6 | Apply different operations in File handling. | 3 | | 2 | 2 | | | | | | 3 | 1 | | | | | | |
| C2-P | Problem Solving in C –Lab | CO1 | Identify the logic for a given problem. | 2 | | 2 | 3 | | | | | | 2 | 1 | | | | | | |
| | | CO2 | Write the algorithm of a given problem. | 3 | | 2 | 3 | | | | | | | 2 | 1 | | | | | |
| | | CO3 | Identify the syntax and construction of C programming code. | 3 | | 2 | 3 | | | | | | | 2 | 2 | | | | | |
| | | CO4 | Discuss steps involved in compiling, linking and debugging C code. | 3 | | 2 | 3 | | | | | | | 2 | 1 | | | | | |
| | | CO5 | Write programs to print output on the screen as well as in the files | 3 | | 2 | 3 | | | | | | | 2 | 1 | | | | | |
| | | CO6 | Identify proper use of user defined functions | 2 | | 2 | 3 | | | | | | | 2 | 2 | | | | | |
| C3 | 2D Graphic Design | CO1 | Apply - Multimedia can make learning more engaging | 3 | | 2 | 3 | 2 | | | | | 2 | 1 | | | | | | |
| | | CO2 | Design concepts using Photoshop. Photoshop is a powerful photo editing tool that can be used to enhance and manipulate images. | 2 | | 2 | 3 | 3 | | | | | | 2 | 1 | | | | | |
| | | CO3 | Create Vector Graphics using Adobe Illustrator, used to create logos, illustrations, and other graphics. By learning Illustrator, | 3 | | 2 | 3 | 2 | | | | | | 2 | 1 | | | | | |
| | | CO4 | Compose Layouts of Books and Magazines - Adobe InDesign is a powerful layout design tool that can be used to prepare, design the concepts of Books and Magazine Coverpages. | 2 | | 3 | 3 | 1 | | | | | | 2 | 1 | | | | | |
| | | CO5 | Review and Summarize Typography skills - InDesign can be used to create and manipulate type. | 3 | | 2 | 3 | 2 | | | | | | 3 | 1 | | | | | |
| | | CO6 | Develop and decide the presentation of works on Animated videos - 2D graphics can be used to create animated videos, including explainer videos, whiteboard animations, | 3 | | 2 | 3 | 2 | | | | | | 2 | 1 | | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|------|-----------------------|--------|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|--|
| C3-P | 2D Graphic Design Lab | CO1 | Define and identify of Design Principles: | 3 | | 2 | 3 | 1 | | | | | 2 | 2 | | | | | | |
| | | CO2 | Apply on Edit images, and remove blemishes using Adobe Photoshop | 2 | | 2 | 3 | 2 | | | | | | 2 | 2 | | | | | |
| | | CO3 | Create and Design Layouts for Books using Adobe InDesign which is a desktop publishing software. | 3 | | 1 | 3 | 3 | | | | | | 1 | 3 | | | | | |
| | | CO4 | Analyse and Sketch Typography: Adobe Photoshop, Adobe Illustrator, and CorelDRAW allow you to create typography-based designs, | 2 | | 2 | 3 | 3 | | | | | | 1 | 1 | | | | | |

Semester -2

Program Outcomes

| Course Code | Course Name | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | |
|-------------|--|--------|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---|
| ENG-II | English - II (A Course In Reading & Writing Skills) | CO1 | Use reading skills effectively. | 3 | 2 | | | | | | | | 3 | 3 | | | | 2 | |
| | | CO2 | List the different types of texts. | 3 | 1 | | | | | | | | | 3 | 2 | | | | 1 |
| | | CO3 | Summarize what is being read. | 3 | 3 | | | | | | | | | 2 | 2 | | | | 1 |
| | | CO4 | Demonstrate repository of active vocabulary. | 3 | 3 | | | | | | | | | 1 | 2 | | | | 1 |
| | | CO5 | List the good writing strategies. | 3 | 1 | | | | | | | | | 2 | 2 | | | | 2 |
| | | CO6 | Write well for any purpose. | 2 | 3 | | | | | | | | | 2 | 1 | | | | 2 |
| LSC-II | Life Skill Course – II (Information & Communication Technology) | CO1 | List the literature of social networks and their properties. | 3 | | | | | | | | | 2 | 3 | | | | | |
| | | CO2 | Explain which network is suitable for whom. | 2 | | | | | | | | | | 3 | 2 | | | | |
| | | CO3 | Discuss about the skills to use various social networking sites like twitter, Flickr, etc. | 2 | | | | | | | | | | 3 | 3 | | | | |
| | | CO4 | Write few GOI digital initiatives in higher education. | 1 | | | | | | | | | | 3 | 2 | | | | 2 |
| | | CO5 | Apply skills to use online forums, docs, spreadsheets, etc for communication, collaboration and research. | 3 | | | | | | | | | | 2 | 2 | | | | |
| | | CO6 | Compare internet threats and security mechanisms. | 2 | | | | | | | | | | 2 | 2 | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | |
|---------|---|--------|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|--|--|
| SDC-II | Skill Development Course - II (Survey & Reporting) | CO1 | Write the basics of survey and reporting needs and methods | 3 | 3 | | | | | 2 | | | 1 | 1 | | | | | | | |
| | | CO2 | Discuss on designing of a questionnaire | 2 | 3 | | | | | 2 | | | | 2 | 1 | | | | | | |
| | | CO3 | Demonstrate on a simple and valid survey and Collect data | 2 | 3 | | | | | 3 | | | | 1 | 2 | | | | | | |
| | | CO4 | Summarize on interpret data and submit report. | 2 | 3 | | | | | 3 | | | | 1 | 2 | | | | | | |
| SDC-III | Skill Development Course - III (Business Communication) | CO1 | Identify the types of business communication and correspondence | 3 | 2 | | | | | | | | 2 | 2 | | | | | | | |
| | | CO2 | List the processes like receiving, filing and replying | 2 | 3 | | | | | | | | | 1 | 2 | | | | | | |
| | | CO3 | Explain about preparing good business communications | 2 | 3 | | | | | | | | | 2 | 2 | | | | | | |
| | | CO4 | Write about organizational communication requirements and presentations. | 3 | 2 | | | | | | | | | 1 | 2 | | | | | | |
| | | CO5 | Discuss search engine, payment gateways and SEO techniques. | 3 | 2 | | | | | | | | | 2 | 2 | | | | | | |
| C4 | Data Structures Data Structures using C | CO1 | Describe how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and used by algorithms. | 3 | | 2 | 3 | | | | | | 3 | 3 | | | | | | | |
| | | CO2 | Describe common applications for arrays, records, linked structures, stacks, queues, trees, and graphs. | 3 | | 2 | 3 | | | | | | | 3 | 2 | | | | | | |
| | | CO3 | Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs | 3 | | 2 | 3 | | | | | | | 3 | 1 | | | | | | |
| | | CO4 | Demonstrate different methods for traversing trees | 3 | | 3 | 3 | | | | | | | 3 | 1 | | | | | | |
| | | CO5 | Compare alternative implementations of data structures with respect to performance | 3 | | 3 | 3 | | | | | | | 3 | 1 | | | | | | |
| | | CO6 | Compare and contrast the benefits of dynamic and static data structures implementations | 3 | | 2 | 1 | | | | | | | 2 | 2 | | | | | | |
| | | CO7 | Describe the concept of recursion, give examples of its use, describe how it can be implemented using a stack. | 2 | | 2 | 3 | | | | | | | 3 | 1 | | | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | |
|------|---|--------|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|--|--|
| | | CO8 | Discuss the computational efficiency of the principal algorithms for sorting, searching, and hashing | 1 | | 3 | 2 | | | | | | 3 | 1 | | | | | | | |
| C4-P | Data Structures Data Structures using C -Lab | CO1 | Identify the appropriate data structure for given problem. | 3 | | 1 | 2 | | | | | | 3 | 2 | | | | | | | |
| | | CO2 | Solve problems using different data structures. | 3 | | 2 | 2 | | | | | | | 3 | 1 | | | | | | |
| | | CO3 | Solve problems using trees, graphs and hash tables addressing various issues. | 2 | | 3 | 2 | | | | | | | | 2 | 1 | | | | | |
| C5 | Film Studies - I | CO1 | Demonstrate of film language and techniques - Students will gain an understanding of the language and techniques | 3 | | 1 | 1 | | | | | | 3 | 3 | | | | | | | |
| | | CO2 | Evaluate Critical analysis skills - Students will develop skills in analysing films critically, | 3 | | 1 | 3 | | | | | | | 3 | 2 | | | | | | |
| | | CO3 | Identify and Describe the Historical and cultural knowledge - Through the study of films from different time periods and cultures, | 3 | | 1 | 2 | | | | | | | | 3 | 2 | | | | | |
| | | CO4 | Classify and Compare the Knowledge of film genres and styles - Students will gain an informative knowledge. | 2 | | 3 | 2 | | | | | | | | 2 | 1 | | | | | |
| | | CO5 | Develop Production skills - Students may have opportunities to learn the practical aspects of filmmaking, | 3 | | 1 | 3 | | | | | | | | 3 | 1 | | | | | |
| | | CO6 | Creative expression - Through film studies, students may develop their creativity and artistic expression | 2 | | 3 | 3 | | | | | | | | 1 | 2 | | | | | |
| C5-P | Film Studies - I Lab | CO1 | Demonstrate about Film History: You will learn about the history of film and how it has evolved over time, including different movements, styles, and genres. | 3 | | 2 | 3 | | | | | | 3 | 2 | | | | | | | |
| | | CO2 | Assess Screenwriting Skills: You will learn how to write a screenplay for a film, including how to develop characters, create a plot, write dialogue, and structure the story. | 1 | | 2 | 3 | | | | | | | | 2 | 2 | | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|------|------------------|--------|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|--|
| | | CO3 | Create and Setup the different stages to learn about of film production, including pre-production, production, and post-production, and how to work with equipment and software used in each stage. | 2 | | 3 | 3 | | | | | | 1 | 1 | | | | | | |
| | | CO4 | Cinematography: You will learn about different techniques used in cinematography, including camera angles, lighting, and framing, and how they can be used to create meaning in a film. | 2 | | 2 | 3 | | | | | | 1 | 2 | | | | | | |
| C6 | 2D ANIMATION | CO1 | Discuss about the technical skills of learning 2D animation involves mastering various technical skills | 3 | | 1 | 1 | | | | | | 3 | 3 | | | | | | |
| | | CO2 | Creative expression: 2D animation is an art form that allows for creativity and self-expression | 3 | | 1 | 2 | | | | | | | 3 | 3 | | | | | |
| | | CO3 | Creating 2D animation often involves working with a team of artists, writers, and producers | 3 | | 1 | 3 | | | | | | | | 3 | 2 | | | | |
| | | CO4 | Decide and judge the technical issues and problem-solving skill in Animating | 2 | | 2 | 3 | | | | | | | | 2 | 2 | | | | |
| | | CO5 | Build and gain the skills and experience necessary to pursue careers in the entertainment industry, advertising, gaming, education | 2 | | 2 | 3 | | | | | | | | 2 | 2 | | | | |
| | | CO6 | Apply and create to communicate ideas visually, and experiment with different styles and techniques. | 3 | | 2 | 3 | | | | | | | | 2 | 1 | | | | |
| C6-P | 2D ANIMATION Lab | CO1 | Evaluate and demonstrate the graphics animation and school projects | 3 | | 2 | 2 | | | | | | 3 | 1 | | | | | | |
| | | CO2 | Create Portfolios of 2D | 3 | | 1 | 1 | | | | | | | 3 | 2 | | | | | |
| | | CO3 | Analyse and Develop Seminar/workshop on E-Learning and 2D Animation | 3 | | 2 | 2 | | | | | | | 3 | 1 | | | | | |
| | | CO4 | List out the knowledge and utilize components to create interactivity and manipulate animation | 2 | | 2 | 3 | | | | | | | | 3 | 1 | | | | |

Semester -3

Program Outcomes

| Course Code | Course Name | CO No. | Course Outcome | Program Outcomes | | | | | | | | | | | | | | | |
|-------------|---|--------|---|------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | |
| ENG-III | English - III (A Course In Conversational Skills) | CO1 | Discuss on Speaking fluently in English. | 3 | 2 | 1 | | | | | | | 3 | 2 | | | | 2 | |
| | | CO2 | Demonstrate confidently in any social interaction. | 2 | 2 | 1 | | | | | | | 2 | 2 | | | | | 3 |
| | | CO3 | Summarize on professional discourse. | 2 | 2 | 1 | | | | | | | 3 | 2 | | | | | 2 |
| | | CO4 | Demonstrate critical thinking. | 3 | 2 | 3 | | | | | | | 2 | 3 | | | | | 1 |
| | | CO5 | Identify conversational skill by observing the professional interviews. | 3 | 2 | 1 | | | | | | | 2 | 2 | | | | | 2 |
| LSC-III | Life Skill Course - III (Environmental Education) | CO1 | List the nature, components of an ecosystem and that humans are an integral part of nature. | 3 | | | | | | | | | 2 | 2 | | | | | |
| | | CO2 | Write the importance of environment, the goods and services of a healthy biodiversity, dependence of humans on environment. | 3 | | | | | | | | | 2 | 2 | | | | | |
| | | CO3 | Explain the ways and ill effects of destruction of environment, population explosion on ecosystems and global problems consequent to anthropogenic activities. | 3 | | | | | | | | | 2 | 2 | | | | | |
| | | CO4 | Discuss the laws/ acts made by government to prevent pollution, to protect biodiversity and environment as a whole. | 3 | | | | | | | | | 1 | 2 | | | | | |
| | | CO5 | List the international agreements and national movements, and realize citizen's role in protecting environment and nature. | 3 | | | | | | | | | 1 | 2 | | | | | |
| LSC-IV | Life Skill Course - IV (Analytical Skills) | CO1 | Identify the basic concepts of arithmetic ability, quantitative ability, logical reasoning, business computations and data interpretation and obtain the associated skills. | 3 | | | 3 | 3 | | | | | 2 | 1 | | | | | |
| | | CO2 | List the competency in the use of verbal reasoning. | 3 | | | 2 | 3 | | | | | 2 | 1 | | | | | |
| | | CO3 | Apply the skills and competencies acquired in the related areas. | 2 | | | 2 | 2 | | | | | 2 | 2 | | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|--------|---|--------|--|-----|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---|---|
| | | | | CO4 | Solve problems pertaining to quantitative ability, logical reasoning and verbal ability inside and outstand the campus. | 2 | | | 3 | 3 | | | | | 2 | 1 | | | | |
| SDC-IV | Skill Development Course - IV (Online Business) | CO1 | Identify the online business and its advantages and disadvantages | 3 | 3 | | | | | 2 | | | 3 | 2 | | | | 2 | | |
| | | CO2 | Recall new channels of marketing, their scope and steps involved | 3 | 3 | | | | | 2 | | | | 2 | 1 | | | | 2 | |
| | | CO3 | Summarize the procurement, payment process, security and shipping in online business | 3 | 3 | | | | | | 2 | | | | 2 | 2 | | | | 1 |
| | | CO4 | Develop new marketing tools for online business | 2 | 2 | | | | | | 2 | | | | 2 | 1 | | | | 3 |
| | | CO5 | List the search engine, payment gateways and SEO techniques. | 3 | 2 | | | | | | 3 | | | | 3 | 2 | | | | 2 |
| C7 | Database Management System | CO1 | Write about the definitions of Database and DBMS. | 3 | | 2 | 2 | | | | | | | 2 | 1 | | | | | |
| | | CO2 | Demonstrate the fundamental concepts of DBMS with special emphasis on relational data model. | 3 | | 2 | 2 | | | | | | | | 1 | 2 | | | | |
| | | CO3 | Demonstrate normalization theory and apply such knowledge to the normalization of a database | 3 | | 2 | 2 | | | | | | | | 2 | 1 | | | | |
| | | CO4 | Design database schemas based on the model. | 3 | | 1 | 1 | | | | | | | | 3 | 3 | | | | |
| | | CO5 | Create a small database using SQL. | 3 | | 1 | 2 | | | | | | | | 3 | 3 | | | | |
| | | CO6 | Apply Use, Store and Retrieve data in database. | 3 | | 1 | 3 | | | | | | | | 3 | 2 | | | | |
| C7-P | Database Management System Lab | CO1 | Write the basic knowledge of SQL queries and relational algebra. | 3 | | 2 | 2 | | | | | | | 3 | 1 | | | | | |
| | | CO2 | Construct database models for different database applications. | 3 | | 1 | 1 | | | | | | | | 3 | 2 | | | | |
| | | CO3 | Apply normalization techniques for refining of databases. | 3 | | 2 | 2 | | | | | | | | 3 | 1 | | | | |
| | | CO4 | Operate on various triggers, procedures, and cursors using PL/SQL. | 2 | | 2 | 3 | | | | | | | | 3 | 1 | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|------|-----------------|--------|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|--|
| C8 | Compositing | CO1 | Explain the principles of compositing: At this level, you should be able to explain the basic principles of compositing | 3 | | 1 | 2 | | | | | | 3 | 3 | | | | | | |
| | | CO2 | Describe and create the interface and tools of After Effects: At this level, you should be able to navigate the After Effects interface, including the timeline, composition panel | 3 | | 1 | 2 | | | | | | | 3 | 1 | | | | | |
| | | CO3 | Compute compositing techniques to create visual effects: At this level, you should be able to apply compositing | 2 | | 2 | 3 | | | | | | | | 3 | 1 | | | | |
| | | CO4 | Analyse and critique existing visual effects: At this level, you should be able to analyze and critique existing visual effects in films | 2 | | 3 | 3 | | | | | | | | 3 | 1 | | | | |
| | | CO5 | Evaluate the ethical and cultural implications of visual effects: At this level, you should be able to evaluate the ethical and cultural implications of visual effects | 3 | | 3 | 2 | | | | | | | | 2 | 1 | | | | |
| C8-P | Compositing Lab | CO1 | Demonstrate the Layer-Based Compositing: composite multiple layers of footage, images, and effects to create a final visual result. This includes layering, blending, and masking. | 3 | | 1 | 2 | | | | | | 3 | 3 | | | | | | |
| | | CO2 | Develop Motion Graphics: You will learn how to create animated graphics and titles using keyframe animation, effects, and typography. | 3 | | 1 | 3 | | | | | | | 3 | 2 | | | | | |
| | | CO3 | Support Visual Effects: You will learn how to create and apply various visual effects to footage, including particle effects, explosions, fire, and smoke. | 3 | | 2 | 3 | | | | | | | | 2 | 1 | | | | |
| | | CO4 | Describe about Color Correction and Grading: You will learn how to adjust the colors and lighting in your footage using tools like color correction, curves, and color grading. | 3 | | 2 | 3 | | | | | | | | 2 | 1 | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | |
|------|------------------------|--------|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|
| C9 | Introduction To 3D | CO1 | Discuss the virtual 3D space and how to build objects | 3 | | | 1 | | | | | | 3 | 3 | | | | | |
| | | CO2 | Develop objects using primitive shapes and sub patch geometry | 3 | | | 3 | | | | | | | 3 | 2 | | | | |
| | | CO3 | Analyse the importance of file backup and management(projects setup) | 3 | | | 3 | | | | | | | 3 | 2 | | | | |
| | | CO4 | Evaluate the projects and assignments developed/prepared by the students | 2 | | | 3 | | | | | | | 3 | 1 | | | | |
| | | CO5 | Build the 3D design is an art form that allows for develop and self-expression | | | | | | | | | | | | | | | | |
| | | CO6 | Justify problem-solving skills by learning to troubleshoot technical issues, revise and refine their work, and meet project deadlines. | 2 | | | 3 | | | | | | | | 2 | 1 | | | |
| C9-P | Introduction To 3D Lab | CO1 | Create and Build 3D models from scratch or from reference images, using various modelling techniques | 3 | | 2 | 3 | | | | | | 3 | 3 | | | | | |
| | | CO2 | Apply 3D models and how to unwrap UV coordinates to create seamless textures. | 3 | | 2 | 3 | | | | | | | 3 | 3 | | | | |
| | | CO3 | Prepare how to set up lights and cameras to create the desired look for your scene. | 3 | | 2 | 3 | | | | | | | 3 | 2 | | | | |
| | | CO4 | Apply Maya, node-based shader editor, which allows you to create complex textures and materials | 3 | | 3 | 3 | | | | | | | 2 | 2 | | | | |
| | | CO5 | Create and Generate 3D design project from start to finish, including concept art, storyboarding, modelling, | 3 | | 2 | 3 | | | | | | | 3 | 3 | | | | |

Semester -4

Program Outcomes

| Course Code | Course Name | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|-------------|------------------|--------|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| C10 | Web Technologies | CO1 | Demonstrate Understand the web software's to build objects | 3 | | | | | | | | | 2 | 1 | | | | |
| | | CO2 | Apply the knowledge to create web pages and web banners | 3 | | | | | | | | | | 2 | 1 | | | |
| | | CO3 | Analyse the importance of file backup and management (setup forms) | 2 | | | | | | | | | | 2 | 2 | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|-------|--|--------|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|--|
| | | CO4 | Support the projects and assignments developed/prepared by the students | 2 | | | | | | | | | 3 | 1 | | | | | | |
| | | CO5 | Evaluate the projects the terms and principles of web design and development | 3 | | | | | | | | | 2 | 1 | | | | | | |
| | | CO6 | Demonstrate on programming and scripting languages to develop web | 2 | | | | | | | | | 3 | 1 | | | | | | |
| C10-P | Web Technologies Lab | CO1 | Solve fundamentals of HTML, including the structure of a web page, basic tags | 3 | | 1 | 3 | | | | | | 2 | 1 | | | | | | |
| | | CO2 | Create CSS to style your web pages, including how to create stylesheets, apply styles to specific elements. | 3 | | 1 | 3 | | | | | | | 2 | 1 | | | | | |
| | | CO3 | Identify and learn how to use Adobe Dreamweaver, a popular web development software, to create and publish web pages. | 2 | | 2 | 3 | | | | | | | | 2 | 1 | | | | |
| | | CO4 | Design and recommend the web design principles such as layout, typography, color, and branding, and how to apply them to create visually appealing and functional websites. | 3 | | 2 | 3 | | | | | | | | 2 | 1 | | | | |
| C11 | Object Oriented Programming Using Java | CO1 | Demonstrate good object-oriented programming skills in Java | 3 | | 1 | 2 | | | | | | 3 | 3 | | | | | | |
| | | CO2 | Apply and implement selected design patterns in Java | 3 | | 1 | 2 | | | | | | | 3 | 1 | | | | | |
| | | CO3 | Identify the capabilities and limitations of Java | 2 | | 2 | 3 | | | | | | | | 3 | 1 | | | | |
| | | CO4 | Summarize common errors in Java and its associated libraries | 2 | | 3 | 3 | | | | | | | | 3 | 1 | | | | |
| | | CO5 | Develop excellent debugging skills | 3 | | 3 | 2 | | | | | | | | 2 | 1 | | | | |
| C11-P | Object Oriented Programming Using Java Lab | CO1 | Summarize the necessity for Object Oriented Programming paradigm and over structured programming | 3 | | 1 | 2 | | | | | | 3 | 3 | | | | | | |
| | | CO2 | Develop java programs, analyze, and interpret object-oriented data and report results. | 3 | | 1 | 3 | | | | | | | 3 | 2 | | | | | |
| | | CO3 | Design an object-oriented system, AWT components or multithreaded process as per needs and specifications. | 3 | | 2 | 3 | | | | | | | | 2 | 1 | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|-------|----------------------|--------|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|--|
| | | CO4 | Demonstrate an ability to visualize and work on laboratory and multidisciplinary tasks like console and windows applications both for standalone and Applets programs | 3 | | 2 | 3 | | | | | | 2 | 1 | | | | | | |
| | | CO5 | Write simple GUI interfaces for a computer program to interact with users, and to understand the event-based GUI handling principles. | 3 | | 3 | 2 | | | | | | 1 | 1 | | | | | | |
| | | CO6 | Describe the programming skills in the Java language. | 3 | | 3 | 2 | | | | | | 2 | 2 | | | | | | |
| | | CO7 | Design a computer program to solve real world problems based on object-oriented principles. | 3 | | 3 | 3 | | | | | | 1 | 1 | | | | | | |
| C12 | Operating System | CO1 | Demonstrate the main components and Structure of Operating System& their functions. | 3 | | | 1 | | | | | | 3 | 3 | | | | | | |
| | | CO2 | Summarize various ways of Process Management& CPU Scheduling Algorithms. | 3 | | | 3 | | | | | | | 3 | 2 | | | | | |
| | | CO3 | Operate on various device and resources like Memory, Time and CPU Management techniques in distributed systems. | 3 | | | 3 | | | | | | | | 3 | 2 | | | | |
| | | CO4 | Apply different methods for Preventing Deadlocks in a Computer System. | 2 | | | 3 | | | | | | | | 3 | 1 | | | | |
| C12-P | Operating System Lab | CO1 | Write and execute simple Unix commands in Unix environment | 3 | | 2 | 3 | | | | | | 3 | 3 | | | | | | |
| | | CO2 | Operate on editing a text file using the standard commands. | 3 | | 2 | 3 | | | | | | | 3 | 3 | | | | | |
| | | CO3 | Operate on Shell scripts to perform various operations | 3 | | 2 | 3 | | | | | | | | 3 | 2 | | | | |
| | | CO4 | Develop different scheduling Algorithms using operating system concepts | 3 | | 3 | 3 | | | | | | | | 2 | 2 | | | | |
| C13 | Advanced 3D | CO1 | List the virtual 3D space and how to build objects | 3 | | | 1 | | | | | | 3 | 3 | | | | | | |
| | | CO2 | Create objects using primitive shapes and sub patch geometry | 3 | | | 3 | | | | | | | 3 | 2 | | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|-------|------------------|--------|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|--|
| | | CO3 | Analyse the importance of file backup and management(projects setup) | 3 | | | 1 | | | | | | 3 | 2 | | | | | | |
| | | CO4 | Evaluate the projects and assignments developed/prepared by the students | 3 | | | 3 | | | | | | 3 | 1 | | | | | | |
| | | CO5 | Deisgn and Develop3D design is an art form that allows for creativity and self-expression. | 2 | | 1 | 3 | | | | | | 2 | 3 | | | | | | |
| | | CO6 | Decide the Problem-solving skills by learning to troubleshoot technical issues, revise and refine their work | 3 | | | 1 | | | | | | 3 | 1 | | | | | | |
| C13-P | Advanced 3D Lab | CO1 | Create and Build 3D Lighting from scratch or from reference images, using various modeling techniques | 3 | | 1 | 1 | | | | | | 3 | 3 | | | | | | |
| | | CO2 | Apply 3D models and how to unwrap UV coordinates to create seamless textures. | 3 | | 1 | 2 | | | | | | | 3 | 3 | | | | | |
| | | CO3 | Prepare how to set up lights and cameras to create the desired look for your scene. | 2 | | 2 | 2 | | | | | | | | 3 | 1 | | | | |
| | | CO4 | Apply Maya, node-based shader editor, which allows you to create complex textures and materials | 2 | | 2 | 3 | | | | | | | | 3 | 1 | | | | |
| | | CO5 | Create and Generate 3D design project from start to finish, including concept art, storyboarding, modelling | 2 | | 3 | 3 | | | | | | | | 3 | 1 | | | | |
| C14 | Compositing - II | CO1 | Computer how the software works and how to use basic features to create composites or solve problems | 3 | | 1 | 2 | | | | | | 2 | 2 | | | | | | |
| | | CO2 | Assess able to use your knowledge of the software to solve problems and create complex composites or VFX shots. | 3 | | 1 | 2 | | | | | | | 2 | 2 | | | | | |
| | | CO3 | Analyse to break down a complex composite or VFX shot and identify the various elements and techniques used to create it | 3 | | 2 | 3 | | | | | | | | 2 | 1 | | | | |
| | | CO4 | Evaluate the effectiveness of a composite or VFX shot based on aesthetic, technical | 3 | | 2 | 3 | | | | | | | | 2 | 1 | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|-------|----------------------|--------|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|--|
| | | CO5 | Create: At this level, you should be able to apply your knowledge of the software and compositing principles to create original composites | 3 | | 2 | 3 | | | | | | 2 | 1 | | | | | | |
| C14-P | Compositing - II Lab | CO1 | Design and Assemble Advanced Layer-Based Compositing: You will learn how to use more advanced layer-based compositing techniques to create complex visual effects | 3 | | 2 | 1 | | | | | | 2 | 2 | | | | | | |
| | | CO2 | Create Advanced Rotoscoping: You will learn how to use more advanced rotoscoping techniques to isolate | 3 | | 3 | 2 | | | | | | | 2 | 1 | | | | | |
| | | CO3 | Compose Keying: You will learn how to use different keying techniques, including green screen and blue screen keying | 3 | | 2 | 3 | | | | | | | | 2 | 1 | | | | |
| | | CO4 | Compose of 3D Compositing: You will learn how to integrate 3D models and scenes into 2D footage using plugins such as Boujou or camera tracking in Nuke. | 3 | | 2 | 3 | | | | | | | | 1 | 1 | | | | |
| | | CO5 | Create how to use advanced color grading techniques to adjust the colors and lighting in your footage using tools such as DaVinci Resolve. | 2 | | 2 | 3 | | | | | | | | 2 | 1 | | | | |
| C15 | Digital Film Editing | CO1 | Explain the basic concepts and techniques of digital film editing, including cutting, trimming | 3 | | | 1 | | | | | | 3 | 3 | | | | | | |
| | | CO2 | Compose Proficiency in using Adobe Premiere Pro software to edit video and audio | 3 | | | 1 | | | | | | | 3 | 2 | | | | | |
| | | CO3 | Apply on Projects to organize and manage media files and projects efficiently | 3 | | | 2 | | | | | | | | 3 | 1 | | | | |
| | | CO4 | Define knowledge of different output formats and how to export a final project for delivery to different platforms or media | 3 | | | 3 | | | | | | | | 3 | 1 | | | | |
| | | CO5 | Explain of a creative and critical eye for analysing and evaluating visual media, including films | 2 | | | 3 | | | | | | | | 2 | 1 | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|-------------|--|--------|---|-------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|--|
| | | CO6 | Apply the role of digital film editing in the larger context of filmmaking | 2 | | | 3 | | | | | | 2 | 1 | | | | | | |
| C15-P | Digital Film Editing Lab | CO1 | Compose and set up editing software such as Adobe Premiere | 3 | | | 1 | | | | | | 3 | 2 | | | | | | |
| | | CO2 | Create and work on different tools and techniques to edit footage, including how to manipulate video and audio tracks | 3 | | | 2 | | | | | | | 2 | 1 | | | | | |
| | | CO3 | Compose story through editing, including how to structure scenes and sequences | 2 | | | 3 | | | | | | | | 2 | 1 | | | | |
| | | CO4 | Analyse to work effectively with other members of a production team | 1 | | | 3 | | | | | | | | 2 | 2 | | | | |
| | | | Semester -5 | Program Outcomes | | | | | | | | | | | | | | | | |
| Course Code | Course Name | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
| 6A | Web Interface Designing Technologies | CO1 | Understand and appreciate the web architecture and services. | 3 | | 1 | 1 | | | | | | 3 | 3 | | | | | | |
| | | CO2 | Gain knowledge about various components of a website. | 3 | | 2 | 1 | | | | | | | 2 | 2 | | | | | |
| | | CO3 | Demonstrate skills regarding creation of a static website and an interface to dynamic website | 2 | | 3 | 3 | | | | | | | | 2 | 1 | | | | |
| | | CO4 | Learn how to install word press and gain the knowledge of installing various plugins to use in their websites. | 2 | | 3 | 3 | | | | | | | | 2 | 1 | | | | |
| | | CO5 | Develop a professional portfolio of web interface designs to showcase their skills to potential employers or clients. | 2 | | 3 | 3 | | | | | | | | 1 | 1 | | | | |
| 6A-P | Web Interface Designing Technologies - Lab | CO1 | Understand the box model concept and apply it to create layouts. | 3 | | 3 | 3 | | | | | | | 2 | 2 | | | | | |
| | | CO2 | Develop interactive web interfaces using JavaScript and jQuery. | 3 | | 3 | 3 | | | | | | | | 1 | 1 | | | | |
| | | CO3 | Use version control systems such as Git to manage and collaborate on web interface development projects. | 3 | | 3 | 3 | | | | | | | | 1 | 1 | | | | |
| | | CO4 | Develop a professional-grade web interface project that showcases their skills and | 3 | | 3 | 3 | | | | | | | | 1 | 1 | | | | |

| | | | | | | | | | | | | | | | | | | | |
|------|---|---------------|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| | | | knowledge in web interface designing technologies. | | | | | | | | | | | | | | | | |
| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | |
| 7A | Web Application Development using PHP & MySQL | CO1 | Write simple programs in PHP. | 3 | | | 1 | | | | | | 3 | 2 | | | | | |
| | | CO2 | Understand how to use regular expressions, handle exceptions, and validate data using PHP. | 3 | | | 2 | | | | | | | 2 | 1 | | | | |
| | | CO3 | Apply In-Built functions and Create User defined functions in PHP programming. | 3 | | | 2 | | | | | | | 2 | 1 | | | | |
| | | CO4 | Write PHP scripts to handle HTML forms | 3 | | | 2 | | | | | | | 2 | 1 | | | | |
| | | CO5 | Write programs to create dynamic and interactive web-based applications using PHP and MySQL. | 2 | | | 2 | | | | | | | 2 | 2 | | | | |
| 7A-P | Web Application Development using PHP & MySQL Lab | CO1 | Know how to use PHP with a MySQL database and can write database driven webpages. | 2 | | | 3 | | | | | | 2 | 1 | | | | | |
| | | CO2 | Develop a dynamic web application using PHP and MySQL. | 2 | | | 3 | | | | | | | 2 | 1 | | | | |
| | | CO3 | Use PHP frameworks such as Laravel or CodeIgniter to simplify web application development. | 3 | | | 3 | | | | | | | 2 | 1 | | | | |
| | | CO4 | Develop a professional-grade web application that showcases their skills and knowledge in PHP and MySQL web application development. | 2 | | | 3 | | | | | | | 1 | 2 | | | | |
| 6B | Cinematography & Editing | CO1 | Define the basic principles of visual storytelling. | 3 | | | 2 | | | | | | 2 | 2 | | | | | |
| | | CO2 | Apply knowledge of color theory and visual effects to enhance storytelling | 2 | | | 3 | | | | | | | 2 | 1 | | | | |
| | | CO3 | Classify and Collaborate with directors, writers, and other filmmakers to create a cohesive visual style. | 3 | | | 2 | | | | | | | 2 | 1 | | | | |
| | | CO4 | Develop technical skills in editing software and hardware | 2 | | | 2 | | | | | | | 2 | 2 | | | | |
| 6B-P | Cinematography & Editing Lab | CO1 | Compose how to operate a camera to capture footage, including setting up shots, adjusting exposure and focus | 2 | | | 3 | | | | | | 2 | 1 | | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|------|---------------------------------|--------|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|--|
| | | CO2 | Create and generate how to capture quality audio, including setting up microphones | 3 | | | 2 | | | | | | 2 | 1 | | | | | | |
| | | CO3 | Analyse story through visual images, including how to plan and execute a shot list, establish mood and tone, and build tension and drama | 2 | | | 3 | | | | | | 2 | 1 | | | | | | |
| | | CO4 | Compose editing software such as Adobe Premiere, Avid, or Final Cut Pro to edit and manipulate footage | 2 | | | 2 | | | | | | 2 | 2 | | | | | | |
| 7B | Photography & Image Editing | CO1 | Define the basic principles of photography | 3 | | | 2 | | | | | | 2 | 1 | | | | | | |
| | | CO2 | Choose digital camera, including settings for aperture, shutter speed, and ISO | 3 | | | 1 | | | | | | | 3 | 1 | | | | | |
| | | CO3 | Design images using software like Photoshop | 3 | | | 1 | | | | | | | 3 | 1 | | | | | |
| | | CO4 | Develop technical skills in editing software and hardware | 2 | | | 3 | | | | | | | 2 | 1 | | | | | |
| 7B-P | Photography & Image Editing Lab | CO1 | Develop and operate a camera to capture quality photographs | 2 | | | 3 | | | | | | 2 | 1 | | | | | | |
| | | CO2 | Compose setting up shots, adjusting exposure and focus, and using different camera modes to create the desired effect | 3 | | | 3 | | | | | | | 2 | 1 | | | | | |
| | | CO3 | Apply different types of lighting, including natural light and studio lighting, to achieve the desired look and mood for your photographs | 3 | | | 3 | | | | | | | 2 | 1 | | | | | |
| | | CO4 | Compose a shot, including selecting the right angle, framing the shot, and creating depth and contrast in the image. | 2 | | | 3 | | | | | | | 2 | 1 | | | | | |
| 6C | 2D Game | CO1 | Create 2D game assets, environments, and animations. | 3 | | | 2 | | | | | | 2 | 1 | | | | | | |
| | | CO2 | Identify fundamental mechanics of game design such as game loops, player feedback, and game balancing. | 3 | | | 2 | | | | | | | 1 | 2 | | | | | |
| | | CO3 | Demonstrate and refine ideas for game concepts, and develop a game design document | 2 | | | 3 | | | | | | | 2 | 1 | | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|------|-------------|--------|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|--|--|
| | | CO4 | Design Outlines game mechanics, storylines, characters, and game world design. | 2 | | | 2 | | | | | | 2 | 2 | | | | | | |
| | | CO5 | Create Gameplay mechanics that challenge players and provide an engaging experience. | 2 | | | 3 | | | | | | 2 | 1 | | | | | | |
| | | CO6 | Developing project management skills, including setting timelines, creating milestones, and managing resources to ensure that game projects | 2 | | | 3 | | | | | | 2 | 1 | | | | | | |
| 6C_P | 2D Game Lab | CO1 | Describe how to design and develop 2D games, including game mechanics, player controls, | 3 | | | 2 | | | | | | 2 | 1 | | | | | | |
| | | CO2 | Create and Develop assets, create scenes, and add game objects | 2 | | | 3 | | | | | | | 2 | 1 | | | | | |
| | | CO3 | Compute and solve C# and other programming languages to create scripts and code game logic | 3 | | | 2 | | | | | | | 2 | 1 | | | | | |
| | | CO4 | Compose add sound effects and music to your game using Unity | 3 | | | 3 | | | | | | | 2 | 1 | | | | | |
| 7C | 2D Design | CO1 | List and Define 2D animation involves mastering various technical skills | 3 | | | 1 | | | | | | 3 | 3 | | | | | | |
| | | CO2 | Creative expression: 2D animation is an art form that allows for creativity and self-expression | 3 | | | 2 | | | | | | | 3 | 3 | | | | | |
| | | CO3 | Creating 2D animation often involves working with a team of artists, writers, and producers | 3 | | | 3 | | | | | | | 3 | 2 | | | | | |
| | | CO4 | Judge and Decide, Animating requires problem-solving skills to address technical issues | 3 | | | 3 | | | | | | | 2 | 1 | | | | | |
| | | CO5 | Choose and define skills and experience necessary to pursue careers in the entertainment industry, advertising, gaming, education | 3 | | | 2 | | | | | | | 3 | 1 | | | | | |
| | | CO6 | Apply to communicate ideas visually, and experiment with different styles and techniques. | 2 | | | 2 | | | | | | | 2 | 1 | | | | | |

| | | CO No. | Course Outcome | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|------|---------------|---------------|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|--|--|
| 7C-P | 2D Design Lab | CO1 | Design and navigate the Toon Boom interface, including how to create new projects, | 3 | | | 3 | | | | | | 3 | 3 | | | | | | |
| | | CO2 | Create drawing tools, including the brush, pencil, and eraser, to create and edit vector-based artwork. | 3 | | | 2 | | | | | | | 3 | 1 | | | | | |
| | | CO3 | Create animations using Toon Boom keyframe and frame-by-frame animation techniques. | 2 | | | 2 | | | | | | | | 2 | 1 | | | | |
| | | CO4 | Compose and design and rig characters in Toon Boom, including how to use the bone and deformation tools | 3 | | | 3 | | | | | | | | 3 | 1 | | | | |