Teerthanker Mahaveer University
College of Computing Sciences & IT

B.Sc. (Animation)

Course Outcomes

BSA101	**CO-1**	Understanding computers, parts of computer, need of internet, Word Processor, Spreadsheets, Database and PowerPoint Presentations.
	CO-2	Understanding the basic features of Ms-Word like Display documents using various views, Font Style, tabs and tables, clip art and pictures, Macro, Mail-Merge.
	CO-3	Analyzing the formulas, functions and absolute relative referencing in MS Excel.
	CO-4	Applying the features of Word Processor to create a document.
	CO-5	Applying some formulas in MS Excel to create a database.
	CO-6	Applying animation tools in PowerPoint to create a interactive presentation.
BSA102	**CO-1**	Understanding the techniques of drawing for animation
	CO-2	Understanding the drawing techniques of backgrounds and it's elements for animation movies
	CO-3	Understanding the techniques of perspective drawing using light and shadow.
	CO-4	Applying the human anatomy study for the character development and movements.
	CO-5	Applying the Anatomy study on cartoons, child character, and animal drawing.
BSA110	**CO-1**	Understanding the basic concepts of graphics and image editing in Adobe Photoshop.
	CO-2	Understanding the basics of print media design and digital typography in Adobe Photoshop.
	CO-3	Understanding the techniques of digital painting, matte painting and image retouching in Adobe Photoshop.
	CO-4	Applying the techniques and tools in Adobe Photoshop.
	CO-5	Creating the elements of Web page template design in Adobe Photoshop
BSA111	**CO-1**	Understanding the concepts of Graphic Design &vector illustration in Adobe illustrator and its application using various tool
	CO-2	Understanding the knowledge drawing & colors to create the 2D animation background in Adobe illustrator
	CO-3	Understanding the uses of advance tools of Adobe illustrator in creation of advertisement and infographics
	CO-4	Analyzing the elements used for graphics designing and print media in adobe illustrator.
	CO-5	Applying the techniques and tools in Adobe illustrator.
TMUGE101	**CO-1**	Remembering and understanding the basics of English grammar and vocabulary.
	CO-2	Understanding the basics of communication.

	CO-3	Applying correct vocabulary and tenses in sentence construction.
	CO-4	Aanalysing different types of tenses and communication.
	CO-5	Drafting applications in correct format on common issues.
BSA155	CO-1	Understanding the basic features of Ms-Word like Display documents using various views, Font Style, tabs and tables, clip art and pictures, Macro, Mail-Merge.
	CO-2	Analyzing the formulas, functions and absolute relative referencing in MS Excel.
	CO-3	Applying the features of Word Processor to create a document.
	CO-4	Applying some formulas in MS Excel to create a database.
	CO-5	Creating animation tools in PowerPoint to create a interactive presentation.
	CO-6	Creating PowerPoint presentations by using tools available in MS PowerPoint. Also editing and modifying it using animation tools.
BSA157	CO-1	Analyzing the concepts of graphic designing & image editing techniques in Adobe Photoshop
	CO-2	Applying the techniques of color correction using Adjustment Layer on the image in Adobe Photoshop.
	CO-3	Applying the brush and advance tools in Adobe Photoshop to make digital painting and matte Painting.
	CO-4	Applying the Graphic Design &vector illustration techniques in Adobe illustrator.
	CO-5	Creating the elements used in designing of buttons, print ads and web page templates
	CO-6	Creating the design of advertisement and infographics with text and advance tool in Adobe Illustrator
BSA 210	CO-1	Understanding scripts storyboards.
	CO-2	Understanding Idea generation process and its sources.
	CO-3	Understanding the concept of story, storytelling ideas.
	CO-4	Applying the importance of storyboard and how to create by its types.
	CO-5	Creating a storyboard for the story
BSA 211	CO-1	Understanding the production pipeline for 2D animation
	CO-2	Understanding the workspace, of Adobe Flash
	CO-3	Understanding the basic concepts of drawing tools available in Adobe Flash
	CO-4	Applying the various types of symbols and their uses.
	CO-5	Applying the advanced concepts of animation tools available in Adobe Flash.
	CO-6	Applying the basic concepts of Action Script, Buttons and Control over their Flash contents with scripts.
BSA 212	CO-1	Understanding the history and technical evolution of Professional cameras.
	CO-2	Understanding the component of camera‟s and functionalities
	CO-3	Understanding the rules of composition for photography and functionalities of video camera and setting up the accessories in cinematography.
	CO-4	Applying the techniques of lighting and application of tripods and other

		camera accessories to capture a good composition in cinematography & Photography	
	CO-5	Applying the rules for camera movement ,shots and angle to create a perfect video shot Painting	
	CO-6	Creating a short film /documentary using cinematography rules and techniques.	
BSA 257	CO-1	Analyzing the video editing software & edit videos for movie / presentation	
	CO-2	Analyzing the process of sound recording & cleaning noise in Adobe audition	
	CO-3	Applying the editing techniques to the video in Adobe premiere	
	CO-4	Applying the of special effect on audio in Adobe Audition.	
	CO-5	Applying the basic of special effects and video transition on video in Adobe Premiere.	
BSA 258	CO-1	Applying the production pipeline to create an animated Short film	
	CO-2	Applying the production pipeline process into the project.	
	CO-3	Applying the basic concepts of drawing tools available in Adobe Flash	
	CO-4	Applying the various types of 2D animation tool and techniques to create project	
	CO-5	Creating animated video using various 2D animation tools.	
BSA 256	CO-1	Applying the techniques of lighting in photography and cinematography	
	CO-2	Applying the application of tripods and other camera accessories to capture a good composition	
	CO-3	Applying the rules for camera movement ,shots and angle to create a perfect video shot Painting	
	CO-4	Creating a Photo album various techniques and types of photography.	
	CO-5	Creating a short film /documentary using cinematography rules and techniques.	
TMUGE201	CO-1	Acquire competence in constructing short sentences dealing day to day activities with grammatical accuracy.	
	CO-2	Acquire adequate knowledge of grammar and vocabulary to address competitive exams	
	CO-3	Improve their listening skills during conversation and speeches.	
	CO-4	Write official letters and emails in correct format on common issues.	
	CO-5	Develop a paragraph on given topics.	
	CO-6	Improvise their voice modulation while reading and speaking something	
	CO7	Attain proficiency in oral presentation.	
	CO8	Comprehend, analyse and enrich their vocabulary through prescribed text.	
BSA 309	CO-1	Understanding the basics of motion graphics	
	CO-2	Understanding the basic of special effects using Adobe after effects.	
	CO-3	Understanding the basic of advance visual effects using Adobe after effects.	
	CO-4	Applying the process of VFX in Adobe After effects	
	CO-5	Applying the VFX techniques in Adobe After effects	
	CO-6	Applying the effects in Adobe After effects	
BSA 310	CO-1	Understanding the interface and come to know about various tools	

			available in Maya
	CO-2		Understanding modeling with Maya.
	CO-3		Aanalyzing the Autodesk Maya files in other 3D software
	CO-4		Applying the modeling techniques using the Autodesk Maya
	CO-5		Creating model characters and objects in 3D for animation and Graphics.
BSA 311	CO-1		Understanding about basic principles of animation.
	CO-2		Understanding the various processes and technologies used in creation of Animations.
	CO-3		Understanding the various drawing techniques used in classical animation.
	CO-4		Applying stop motion and non conventional techniques to create short animations
	CO-5		Applying the various processes and technologies used in creation of Animations to create experimental animation.
TMUGE 301	CO-1		Remembering and understanding the English grammar and vocabulary
	CO-2		Understanding the art of public speaking and strategies of reading comprehension.
	CO-3		Applying correct vocabulary and sentence construction during public speaking or professional writing.
	CO-4		Aanalyzing different types of sentences like simple, compound and complex.
	CO-5		Drafting notice, agenda and minutes of the meeting. Demonstrating speaking skills during common conversation and power point presentation.
BSA 356	CO-1		Analyzing the interface and come to know about various tools available in Maya
	CO-2		Analyzing modeling with Maya
	CO-3		Analyzing the Autodesk Maya files in other 3D software
	CO-4		Applying the modeling techniques using the Autodesk Maya.
	CO-5		Creating model characters and objects in 3D for animation and Graphics.
BSA 357	CO-1		Analyzing the basics of motion graphics
	CO-2		Analyzing the basic of special effects using Adobe after effects
	CO-3		Applying the basics of advance visual effects using Adobe after effects.
	CO-4		Applying the process of VFX in Adobe After effects.
	CO-5		Applying the VFX techniques in Adobe After effects
	CO-6		Creating the effects in Adobe After effects.
BSA 358	CO-1		Understanding about basic principles of animation.
	CO-2		Understanding the various processes and technologies used in creation of Animations
	CO-3		Understanding the various drawing techniques used in classical animation.
	CO-4		Applying stop motion and non conventional techniques to create short animations
	CO-5		Applying the various processes and technologies used in creation of Animations to create experimental animation.
BSA 359	CO-1		Understanding the knowledge and skills needed to run a business successfully

	CO-2	Understanding the factors and skills needed to Influencing an Entrepreneur.
	CO-3	Understand the value of harmonious relationship based on trust, respect and other naturally acceptable feelings in human-human relationships and explore their role in ensuring a harmonious society
	CO-4	Applying the knowledge and skills of financing and accounting
	CO-5	Applying the different government policies to run a business successfully
TMUGS-301	CO-1	Utilizing effective verbal and non-verbal communication techniques in formal and informal settings
	CO-2	Understanding and analyzing self and devising a strategy for self growth and development
	CO-3	Adapting a positive mindset conducive for growth through optimism and constructive thinking.
	CO-4	Utilizing time in the most effective manner and avoiding procrastination.
	CO-5	Making appropriate and responsible decisions through various techniques like SWOT, Simulation and Decision Tree.
	CO-6	Formulating strategies of avoiding time wasters and preparing to-do list to manage priorities and achieve SMART goals.
BSA 408	CO-1	Understanding the different kinds of lights and light setup in a Maya scene.
	CO-2	Understanding the use of lights and to set their attributes more precisely.
	CO-3	Understanding about how to get final output of their scene using various rendering techniques
	CO-4	Applying Various techniques like shadows and Fog in Maya lighting system.
	CO-5	Applying various rendering techniques of Maya lighting to achieve desired output.
TMUGE401	CO-1	Remembering and understanding the English grammar and vocabulary
	CO-2	Understanding the essentials of effective listening and speaking.
	CO-3	Understanding the corporate expectations and professional ethics
	CO-4	Understanding the corporate expectations and professional ethics.
	CO-5	Analyzing different types of interviews
	CO-6	Drafting resume, C.V. or cover letter
BSA410	CO-1	Understanding the basic concepts of game designing.
	CO-2	Understanding the Planning and lay outing a game concept.
	CO-3	Understanding the knowledge about different game element and how to create using 3Ds MAX
	CO-4	Analyzing the Unity game engine and its functionality.
	CO-5	Applying concepts eg Game designing to create the stage of game.
BSA411	CO-1	Understanding the basic concept of AutoCAD through it"s tool, palettes and units.
	CO-2	Understanding the 3D construction technique, through it"s primitives and coordinates.
	CO-3	Understanding the learn the architectural design
	CO-4	Understanding the learn the Architectural 3D Modeling.
	CO-5	Applying the add light, rendering and getting the final output, of the Modeled Architectural plan.

	CO-6	Applying the concepts of architecture to create a perfect architectural walkthrough	
BSA412	**CO-1**	Understanding the concept of Z-brush, working with layout, palettes, canvas, etc.	
	CO-2	Understanding to combination of Autodesk Maya or Autodesk 3ds max with Z-brush for a final output	
	CO-3	Understanding to use various lighting, shadows and texturing technique.	
	CO-4	Applying the mapping and skinning of the Z-brush Models	
	CO-5	Applying the brushes , render and final posing of characters	
BSA 463	**CO-1**	understanding the basic concepts of game designing.	
	CO-2	Analyzing the Planning and lay outing a game concept.	
	CO-3	Applying the knowledge about different game element and how to create using 3Ds MAX	
	CO-4	Applying the Unity game engine and its functionality.	
	CO-5	Creating concepts eg Game designing to create the stage of game	
BSA 464	**CO-1**	Understanding the basic concept of AutoCAD through it‟s tool, palettes and units.	
	CO-2	Analyzing the 3D construction technique, through it‟s primitives and co-ordinates.	
	CO-3	Analyzing the learn the architectural design	
	CO-4	Applying the learn the Architectural 3D Modeling.	
	CO-5	Applying the add light, rendering and getting the final output, of the Modeled Architectural plan	
	CO-6	Creating the concepts of architecture to create a perfect architectural walkthrough	
BSA 460	**CO-1**	Analyzing the concept of Z-brush, working with layout, palettes, canvas, etc.	
	CO-2	Analyzing to combination of Autodesk Maya or Autodesk 3ds max with Z-brush for a final output	
	CO-3	Applying to use various lighting, shadows and texturing technique.	
	CO-4	Applying the mapping and skinning of the Z-brush Models.	
	CO-5	Creating the brushes , render and final posing of characters	
BSA 461	**CO-1**	Understanding the different kinds of lights and light setup in a Maya scene.	
	CO-2	Analyzing the use of lights and to set their attributes more precisely.	
	CO-3	Analyzing how to get final output of their scene using various rendering techniques.	
	CO-4	Applying Various techniques like shadows and Fog in Maya lighting system	
	CO-5	Applying various rendering techniques of maya lighting to achieve desired output.	
	CO-6	Creating A lighting scene in MAYA	
BSA 462	**CO-1**	Analyzing the 3D project pipeline	
	CO-2	Analyzing the use of 3D and 2D software in Game design/Architectural design	
	CO-3	Applying Various techniques of 3D and 2D animation	
	CO-4	Applying various rendering techniques to achieve desired output	

	CO-5	Creating A video based on Gaming/3D modelling/Architectural Design as final output
BSA 512	CO-1	Understanding the Rigging process in Maya, they are elaborated with creation of different kind of rigs for characters and objects.
	CO-2	Understanding the animation Maya, they practice to apply various animation principles and learn different tools for Animation in Maya.
	CO-3	Analyzing the various techniques of Animation in Maya
	CO-4	Applying the various technique of rigging in Maya
	CO-5	Applying the various technique and tools
BSA 514	CO-1	Understanding web technologies and basic of web design
	CO-2	Understanding the use of HTML and CSS to making the web sites
	CO-3	Understanding the UI/UX basics and designing.
	CO-4	Analyzing the various techniques of UI/UX for designing
	CO-5	Applying the Different techniques to design web site
BSA 516	CO-1	Understanding the print designs and technologies using Adobe Indesign and coral draw
	CO-2	Understanding the document for designing, drawing and colors tools used in designing
	CO-3	Understanding to create resume, brochure, leaflet, magazine
	CO-4	Applying the various tool (Adobe Indesign and Coraldraw) to create print designs.
	CO-5	Applying the print design techniques to create resume, brochure, leaflet, magazine.
BSA 515	CO-1	Understanding the node based compositing systems
	CO-2	Understanding to use open poly support feature to enhance the rotoscopy skills.
	CO-3	Understanding to get 3D compositing techniques such as camera projection, 3D particles.
	CO-4	Applying the VFX features and create shorts like Gravity films.
	CO-5	Applying the different 3D compositing techniques such as camera projection, 3D particles to create a vfx shot.
BSA 558	CO-1	Understanding the Rigging process in Maya, they are elaborated with creation of different kind of rigs for characters and objects.
	CO-2	Understanding the animation in Maya and practice to apply various animation principles and learn different tools for Animation in Maya.
	CO-3	Analyzing the various techniques of Animation in Maya.
	CO-4	Applying the various technique of rigging in Maya
	CO-5	Applying the various technique of animation in maya.
BSA 559	CO-1	Understanding the concepts of advance video editing software.
	CO-2	Analyzing the process of creating news packaging in Final cut pro
	CO-3	Applying the editing techniques to the video in Final cut pro
	CO-4	Creating the special effects and video transition on video in Final cut pro
	CO-5	Creating a motion teaser/short film/documentaries.
BSA 561	CO-1	Understanding web technologies and basic of web design
	CO-2	Analyzing the use of HTML and CSS to making the web sites
	CO-3	Analyzing the UI/UX basics and designing.
	CO-4	Applying the various techniques of UI/UX for designing

	CO-5	Creating the design of a web site using Different techniques of web designing
BSA 562	CO-1	Understanding the print designs and technologies using Adobe Indesign and coral draw.
	CO-2	Analyzing the document for designing, drawing and colors tools used in designing.
	CO-3	Analyzing to create resume, brochure, leaflet, magazine.
	CO-4	Applying the various tool (Adobe Indesign and Coraldraw) to create print designs.
	CO-5	Creating the resume, brochure, leaflet, magazine using print design techniques .
BSA 560	CO-1	Understanding the node based compositing systems
	CO-2	Analyzing to use open poly support feature to enhance the rotoscopy skills
	CO-3	Analyzing 3D compositing techniques such as camera projection, 3D particles
	CO-4	Applying to use VFX features and create shorts like Gravity films.
	CO-5	Creating a vfx shot using different 3D compositing techniques such as camera projection, 3D particles.
BSA 608	CO-1	Understanding the basic concepts of Augmented reality
	CO-2	Understanding the basic concepts of Virtual reality
	CO-3	Analyzing the different tools and frameworks in virtual reality
	CO-4	Analyzing the different tools and frameworks in Key Technology in AR.
	CO-5	Applying the VR in 3D visual Shot creation
BSA 610	CO-1	Understanding the knowledge about cinema 4D software
	CO-2	Understanding the Knowledge about modeling & 3D motion graphics element
	CO-3	Understanding the creation 3D design using Cinema 4D
	CO-4	Applying different techniques using Cinema 4D to create 3D motion graphics and elements
	CO-5	Applying the various Techniques and tools in cinema4D.
BSA 609	CO-1	Understanding the concept of dynamics and n-Dynamics in Maya
	CO-2	Understanding various attributes of Fur node in Maya
	CO-3	Understanding with liquid simulation using Realflow.
	CO-4	Applying real time Hair for 3D characters and real cloths for Animation using n-Cloth feature of Maya
	CO-5	Applying fur for animals models.
	CO-6	Applying special effects using Maya Particles and n-Particles such as water, fire smoke etc.
BSA 607	CO-1	Understanding the basic concepts of production pipeline.
	CO-2	Understanding various departments of 3d animation studio.
	CO-3	Understanding pre production pipeline for using story, script, character designing, background and layouts, staging Storyboarding, voice over, Background audio, animatic,
	CO-4	Applying the production process pipeline for character modeling, texturing and Shading, background creation, props Modeling, Rigging, Character animations, lighting the scenes

	CO-5	Applying the post production pipeline used for rendering in 3D animation
BSA 658	CO-1	Understanding the basic concepts of Augmented reality
	CO-2	Understanding the basic concepts of Virtual reality
	CO-3	Analyzing the different tools and frameworks in virtual reality.
	CO-4	Analyzing the different tools and frameworks in Key Technology in AR
	CO-5	Creating an Animation video using VR and AR
BSA 661	CO-1	Analyzing the knowledge about cinema 4D software
	CO-2	Analyzing the Knowledge about modeling & 3D motion graphics element
	CO-3	Analyzing the creation 3D design using Cinema 4D
	CO-4	Applying different techniques using Cinema 4D to create 3D motion graphics and elements
	CO-5	Creating a final output in cinema 4D
BSA 659	CO-1	Understanding the concept of dynamics and n-Dynamics in Maya
	CO-2	Applying various attributes of Fur node in Maya.
	CO-3	Applying fur for animals models.
	CO-4	Applying real time Hair for 3D characters and real cloths for Animation using n-Cloth feature of Maya
	CO-5	Creating special effects using Maya Particles and n-Particles such as water, fire smoke etc
	CO-6	Creating liquid simulation using Realflow
BSA 660	CO-1	Applying the production pipeline concepts to create an animated Short film.
	CO-2	Applying the various types of 3D animation tool and techniques to create project
	CO-3	Applying the basic concepts of animation tools available in Maya
	CO-4	Applying the Animation and rigging process into the project.
	CO-5	Creating animated video uses various 3D animation tools.