



**B.Sc. Game Design
(Specialisation in Art/Programming)**

**Curriculum and Syllabus
(Based on Choice Based Credit System)
Effective from the Academic year
2017 - 2018**

**Department of Visual Communication
School of Mass Communication**

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

PEO 1: Import knowledge of creative and logical skill with science as basic objective of education.

PEO 2: Graduates will function in their profession with social awareness and responsibility.

PEO 3: Graduates will interact with their peers in other disciplines in their work place and society and contribute to the economic growth of the country.

PEO 4: Graduates will be successful in pursuing higher studies in their chosen Game designing field.

PEO 5: A creative attitude to make students create open minded and curiosity

PROGRAMME OUTCOMES (POs)

PO1. Differentiate the tools and techniques involved in creating 2D & 3D games.

PO2. Identify and apply suitable methods to create games for various platforms.

PO3. Design and conduct experiments to address problems germane to the discipline.

PO4. Ability to understand the current and future trends in gaming industry.

PO5. Integrate 2D & 3D assets in to Game Engines to publish Games.

PO6. Having a clear understanding of the subject related concepts and of contemporary issues

PO7. Having adaptive thinking and adaptability

PROGRAMME SPECIFIC OUTCOME (PSO)

PSO1. Game designing and development graduates will have an understanding of logical and aesthetic issues in computer graphics and mixed-media.

PSO2. Student will know basic creative principles and factors in developing the gaming concepts.

PSO3. Student will be able to effectively use technical, conceptual and critical abilities, and appropriate multimedia technology tools.

PSO4. They will be able to critically evaluate multimedia graphics and the animation.

PSO5. They will have an appreciation for the professional code of ethics for the creative process to meet the industry standard.

B.SC. Game Design (Specialization in Art / Programming)**CURRICULUM****Total number of credits: 140****Semester: I**

Category	Code	Course	Hours/week			Credits
			Lecture	Tutorial	Practical	
Core	17LTAM11	Language-I Tamil / Hindi / French	5	0	0	4
Core	17LENG11	Foundation English – I	5	0	0	4
Core	17PBGD11	Basics of Drawing	2	1	4	4
Core	17PBGD12	Anatomy Study	2	1	4	4
Core	17PBGD13	Clay Modeling	0	0	4	2
Core	17PBGD14	Digital Design	2	0	4	2
SEC	---	SEC – I	0	0	0	2
		Total	16	2	16	22

Semester: II

Category	Code	Course	Hours/week			Credits
			Lecture	Tutorial	Practical	
Core	17LTAM21	Language-II Tamil / Hindi / French	5	0	0	4
Core	17LENG21	Foundation English II	5	0	0	4
Core	17CBGD21	Basics of 3d Modeling and Texturing	2	2	6	4
Core	17PBGD21	Character Modeling -1	2	2	4	4
Core	17PBGD22	Character Sculpting -1	2	0	4	4
Core	17PBGD23	Animation Basics	2	0	4	3
		Total	18	4	18	23

Semester: III

Category	Code	Course	Hours/week			Credits
			Lecture	Tutorial	Practical	
Core	17LTAM31	Language-III Tamil / Hindi / French	4	0	0	4
Core	17CBGD31	Game Engine – Level 01(T)	4	0	0	4
Core	17PBGD31	2D Animation (P)	0	0	4	2
Core	17PBGD32	Character Animation -1(P)	0	0	4	2
Core	17PBGD33	Character Rigging -1 (P)	0	0	4	2
DSE		Discipline Specific Elective – I(P)	0	0	4	2
AECC		AECC – I (T)	4	0	0	4
GE		Generic Elective – I	2	0	0	2
		Total	14	0	16	22

Semester: IV

Category	Code	Course	Hours/week			Credits
			Lecture	Tutorial	Practical	
Core	17LTAM41	Language-IV Tamil / Hindi / French	4	0	0	4
Core	17PBGD41	Lighting and Rendering (P)	0	2	4	4
Core	17PBGD42	Character Sculpting -2 (P)	0	0	4	2
Core	17PBGD42	Game Engine – Level 02 (P)	0	0	4	2
DSE	17	Discipline Specific Elective – II (T)	4	0	0	4
AECC		AECC – II (T)	4	0	0	4
AECC		AECC – III (T)	2	0	0	2
GE		Generic Elective – II	2	0	0	2
		Total	16	2	12	24

Semester: V

Category	Code	Course	Hours/week			Credits
			Lecture	Tutorial	Practical	
Core	17PBGD51	Visual Effects (P)	0	0	4	2
Core	17CBGD51	Level Design (T)	4	0	0	4
Core	17CBGD52	VR System (T)	4	0	0	4
Core	17CGBD53	Artificial intelligence in games (T)	4	0	0	4
Core	17PBGD52	Java Script (P)	0	0	4	2
DSE		Discipline Specific Elective – III(P)	0	0	3	2
DSE		Discipline Specific Elective – IV(T)	3	0	0	3
GE		Generic Elective – III (T)	2	0	0	2
SEC	----	SEC – II (T)	2	0	0	2
		Total	19	0	11	25

Semester: VI

Category	Code	Course	Hours/week			Credits
			Lecture	Tutorial	Practical	
Core	17CBGD61	Mobile App Marketing (T)	4	0	0	4
Core	17PBGD61	Scripting in Game Engine (P)	0	2	2	3
Core	17PBGD62	Game Creation and Publishing (P)	0	2	2	3
Core	17PBGD63	Game Production Concepts (T)	4	0	0	4
DSE		Discipline Specific Elective – V (P)	0	0	4	2
DSE		Discipline Specific Elective - VI (P)	0	0	4	2
DSE		Discipline Specific Elective - VII (P)	0	0	4	2
GE		Generic Elective – IV (T)	2	0	0	2
SEC		SEC – III	0	0	0	2
		Total	10	4	16	24

List of Discipline Specific Elective Courses:

S.No.	Course
1.	Story Board
2.	Acting for Games
3.	Character Design
4.	Physics for Games
5.	2D Showreel
6.	Graphics Programming
7.	Compositing
8.	Matte Painting
9.	Creative Script Writing
10.	C# Programming

List of Ability Enhancement Compulsory Courses:

S.No.	Course
1.	Foundation English – III
2.	Foundation English – IV
3.	Advanced Animation
4.	Environmental Studies Paper-I
5.	Ethics and values

List of Generic Elective Courses:

S.No.	Course
1.	E-Commerce
2.	Internet Basics
3.	Office Automation tools
4.	Advanced Excel
5.	Tourism Management

List of Skill Enhancement Elective Courses:

S.No.	Course
1.	Personality Development -I
2.	Personality Development -II
3.	Personality Development -III
4.	NSS – I
5.	NSS – II
6.	NSS – III

Syllabus

Core Courses

நோக்கம்: தமிழ்மொழி மற்றும் இலக்கியத்தின் வரலாற்றை அறிவுகம் செய்யும் நோக்கில் இப்பாடம் வடிவமைக்கப்பட்டுள்ளது. தமிழ்மொழியின் வரலாற்றை அறிவியல் கண்ணோட்டத்திலும் மொழிக்குடும்பங்களின் அடிப்படையிலும் விளக்குகிறது. சங்க இலக்கியம் தொடங்கி, இக்கால இலக்கியம் வரையிலான தமிழிலக்கிய வரலாற்றை இலக்கிய வரலாறு அறிவுகப்படுத்துகின்றது. அரசு வேலை வாய்ப்பிற்கான போட்டித் தேற்களுக்குப் பயன்படும் வகையிலும் இப்பாடம் அமைந்துள்ளது.

அலகு 1 தமிழ் மொழி வரலாறு

13 மணி நேரம்

மொழிக்கூடும்பம் - இந்திய மொழிக்குடும்பங்கள் - இந்திய ஆட்சி மொழிகள் - திராவிட மொழிக்கூடும்பங்கள் - திராவிட மொழிகளின் வகைகள் - திராவிட மொழிகளின் சிறப்புகள் - திராவிட மொழிகளின் வழங்கிடங்கள் - திராவிட மொழிகள் தமிழின் இடம் - தமிழ்மொழியின் சிறப்புகள் - தமிழ் பிறமொழித் தொடர்கள்.

அலகு 2 சங்க இலக்கியம்

12 மணி நேரம்

சங்க இலக்கியம் - எட்டுத்தொகை - நற்றிணை - குறுந்தொகை - ஐங்குறுநூறு - பதிற்றுப்பத்து - பரிபாடல் - கடந்தொகை - அகநானூறு - ஞானநானூறு - பத்துப்பாட்டு - திருமுருகாற்றுப்படை - சிவபாணாற்றுப்படை - பெரும்பாணாற்றுப்படை - பெரியநாற்றுப்படை - மைலபுகடாம் - குறிஞ்சிப்பாட்டு, கல்லைப்பாட்டு, பட்டினப்பாலை - நெடுநல்வாடை - முரைக்காஞ்சி.

அலகு 3 அற இலக்கியங்களும் காப்பியங்களும்

11 மணி நேரம்

களப்பிரர் காலம் விளக்கம் - நீதி இலக்கியத்தின் சமூகத்தேவை - பதினெண்கீழ்க்கணக்கு கல்கள் அறிவுகம் - திருக்குறள், நாலடியார். காப்பியங்கள் - ஐம்பெய்காப்பியங்கள் மற்றும் ஐஞ்சிங்காப்பியங்கள் அறிவுகம் - காப்பிய இலக்கணம் - சிலப்பதிகாரம் - மணிமேகலை - சீவகசிந்தாமணி - வைளயாபதி - குண்டலேகசி.

அலகு 4 பக்தி இலக்கியங்களும் சிற்றிலக்கியங்களும்

11 மணி நேரம்

தமிழகப் பக்தி இயக்கங்கள் - பக்தி இலக்கியங்கள் - சைவ இலக்கியம் - நாயன்மார்கள்

அடிபதிர் ஸ்வர் - சமயக்குரவர் நால்வர் - வைணவ இலக்கியம் - பன்னிடி ஆழ்வார்கள் - சீதல் ஸ்ரீரீ ஆழ்வார்கள்.

சிற்றிலக்கியக் காலம் - சிற்றிலக்கியங்கள் - வைககள் - பரணி - கர்ங்கதீர்ப்பரணி -

குறவஞ்சி - குற்றாலக் குறவஞ்சி - பிள்ளைத்தமிழ் - மீனாட்சியம்மைப் பிள்ளைத்தமிழ் - ிர் - தமிழ்விடு ிர் -

கலம்பகம் - நந்திக்கலம்பகம் - பள்ள - ளக்கூடற்பள்ள.

அலகு 5 இக்கால இலக்கியங்கள்

13 மணி நேரம்

நகர காலம் - நகர இலக்கியம் - உள்ளடக்கம் - ளக்கவிதை - தேற்றம் வளர்ச்சியும்

- நாவல் - சீதல் ஸ்ரீரீ நாவல்கள் - நாவலின் வகைகள் - லொடர் லொடர் நாவல்கள் -

வரலாற்ற நாவல்கள் - சுக நாவல்கள் - இக்கால நாவல்கள் - லொடர் லொடர் நாவல்கள்

- சீதல் - வகைகளும் வளர்ச்சியும் - நாடகம் - காலந்தேறும் நாடகங்கள் - ளரண

இதிகாச நாடகங்கள் - சுக நாடகங்கள் - வரலாற்ற நாடகங்கள் - லொடர் லொடர் நாடகங்கள் - நகரக்கலம்

நாடகங்கள்.

மொத்தம்: 60 மணி நேரம்

கல்வித்திட்டப் பயன்கள்(Programme Outcome): தமிழிலக்கிய வரலாற்ற முழுவதும் அறிமுக ிறலயில் அறிந்துமகொள்ளும் வறகயில் இப்பொடத்திட்டம் பயனுறடயதொக அறமகிறது. அரசுத் நதர்வுகள், மபொது அறிவுப் நபொட்டிகள் நபொன்ற தமிழ் லொடர்ந்த இயங்குதளங்களில் இந்தப் பொடத்திட்டம் பயன்பொடுறடயதொக அறமயும்.

பார்வை ள்கள்

1. அகத்தியடங்கம். ச., "திராவிடலொடிகள் லொகுதி 1", மணிவாசகர் பதிப்பகம், சீதல்பதிப்பு, 1978.
2. சக்திவேல். ச., "தமிழ்லொடர் வரலாறு", மணிவாசகர் பதிப்பகம், சீதல்பதிப்பு 1998.
3. லண்ணன், " தமிழ் இலக்கிய வரலாறு", சைவசித்தாந்த சீதல்பதிப்புக் கழகம், சீதல்பதிப்பு, 1998.
4. வரதராசன். ள., " இலக்கிய வரலாறு", சாகித்ய அகாடெமி, லன்பதாம் பதிப்பு, 1994.
5. விமலானந்தம். மர். ச., "இலக்கிய வரலாறு", பாரி நிலையம், மபதிப்பு, 2008.

Course objective: To train the students in the use of Karyalayin Basha. To enable the students to develop the communication skills in Hindi language.

UNIT I GADYA AUR KARYALAYIN BASHA **12**

Mamata, -Yogyatha evam vyavasay kaa Chunaav Paribashik shabdavalil prashasanik vakyansh, padanam,

UNIT II GADYA AUR SARKARI PATRA **12**

Rajneethi kaa Bhantwara, , Samanya sarkari patra, gyapan, karyalay gyapan

UNIT III GADYA AUR SARKARI PATRA **12**

Computer nayi krantee kee dastak, , Karyalay aadesh, Ardha sarkari patra paripatra, Adhisoochana

UNIT IV GADYA AUR SAMANYA PATRA **12**

Raspriya, Samanya patra- chutti patra, sampadak ke naam patra, shikayati patra, pustak vikretha ke naam patra

UNIT V VYAVASAAAYIK PATRA **12**

Bankon mein bach khaata kholne ke liye – chek buk ke liye, run lene hetu, chek buk gum ho jane hetu, kitaabon kaa krayadesh

Total: 60 Hrs

Outcome:

- Through the story students will be familiar with the writing style of great writer “sri Jayashankar Prasad”, & can understand the situation of country during Mughal period .
- To make the children understand the importance of selecting a profession according to one’s own interest.
- To describe the present situation; politician’s behaviour & their self-oriented activities.
- To explain the importance of computer in daily life in all the fields.
- This story helps the students to understand the Writing style of writer “Fanishwarnath renu” who is well known for his village type Stories .

- Training them different types of letters& technical words will help the students
- to understand the
- official work in Hindi.

TEXT BOOK:

1. Gadya Aur Prayojanmulak Hindi ed by Dr.N.Lavanya Mayura Publishers,
edition 2008

Course Objective: To introduce French language. To enable the students to understand and to acquire the basic knowledge of French.

UNIT I INTRODUCTION	12
Introduction - Alphabet – Comment prononcer, écrire et lire les mots- Base : Les prénoms personnel de 1 ^{er} , 2 ^{ème} et 3 ^{ème} personnes – Conjugaisons les verbes être et avoir en forme affirmative, négative et interrogative	
UNIT II LEÇONS 1- 3	12
Leçons 1. Premiers mots en français,- 2. Les hommes sont difficiles,- 3 Vive la liberté- Réponses aux questions tirés de la leçon - Grammaire : Les adjectives masculines ou féminines – Les articles définis et indéfinis - Singuliers et pluriels	
UNIT III LEÇONS 4- 6	12
Leçons 4. L’heure, C’est l ;heure,- 5. Elle va revoir sa Normandie,- 6 .Mettez –vous d’accord groupe de nom - Réponses aux questions tirés de la leçon - Grammaire : A placer et accorder l’adjectif en groupe de nom- Préposition de lieu –A écrire les nombres et l’heure en français	
UNIT VI LEÇONS 7- 9	12
Leçons 7. Trois visage de l’aventure,- 8. A moi, Auvergne,- 9. Recit de voyage - Réponses aux questions tirés de la leçon - Grammaire : Adjectif possessif – Les Phrases au Présent de l’indicatif - Les phrases avec les verbes pronominaux au présent	
UNIT V COMPOSITION	12
A écrire une lettre à un ami l’invitant à une célébration différente ex : mariage – A faire le dialogue - A lire le passage et répondre aux questions	

Total : 60 Hrs

TEXT BOOK :

1. Jacky GIRARDER & Jean Marie GRIDLIG, « Méthode de Français PANORAMA », Clé Internationale , Goyal Publication, New Delhi.,Edition 2004

Course Outcome

- Through the story students will be familiar with the writing style of great writer “sri Jayashankar Prasad”,&can understand the situation of country during Mughal period .
- To make the children understand the importance of selecting a profession according to one’s own interest.
- To describe the present situation;politian’s behaviour& their selforiented activities.
- To explain the importance of computer in daily life in all the fields.
- This story helps the students to understand the Writing style of writer “Fanishwarnath renu” who Is well

known for his village type Stories .

REFERENCE BOOKS:

1. DONDO Mathurin , “ Modern French Course”, Oxford University Press.,New Delhi., Edition 1997
2. Nitya Vijayakumar, “Get Ready French Grammar – Elementary”, Goyal Publications, New Delhi, Edition 2010

Course Objective: -To enable the students to develop their communication skills effectively.
 -To make students familiar with the English Language.
 -To enrich vocabulary in English
 -To develop communicative competent

UNIT I	DETAILED POEMS I 1. On His Blindness - John Milton 2. The Village Schoolmaster - Oliver Goldsmith 3. The Daffodils - William Wordsworth	12
UNIT II	DETAILED POEMS II 4. Night and Death - Joseph Blanco White 5. The Ballad of Father Gilligan - W.B. Yeats	12
UNIT III	PROSE 1. Martin Luther King Jr. - Coretta s King 2. Albert Schweitzer - Norman Wymar 3. Stanley Finds Livingstone - Lawrence Wilson 4. Srinivasa Ramanujan - C.P. Snow 5. My Days - R.K. Narayan	12
UNIT IV	GRAMMAR 1. Articles 2. Prepositions 3. Tenses 4. Wh - Questions 5. Synonyms and Antonyms 6. One Word Substitution	12
UNIT V	COMPOSITION 1. Reading Comprehension 2. Filling up Forms 3. Railway Reservation/ Cancellation Forms 4. Bank-Chalan 5. Convocation Form 6. Money Order Form	12

Total: 60 Hrs

Course outcome

CO 1: Examine the difference between poetic language and the language of the prose.

CO 2: Utilize instructions on fundamentals of grammar

CO 3: Develop their own style of writing after studying diverse prose essays.

CO 4 Classify different poems on the basis of their types.

CO 5 Conclude the textual content for composition.

TEXT BOOK:

1. Mahadevan, Usha. Empower with English, Sun Beams - I. Emerald Pub: Chennai. 2012. Print.

Course objective: The students to gain a control of representational drawing skills, and to understand and manipulate the proportional relationships from actual objects, Manipulating the formal elements and principles to achieve better design solutions, importance and control of good craftsmanship and presentation skills.

UNIT I BASICS OF DRAWING 12

Drawing basics, material handling and understanding, teaching variety of lines, vertical, horizontal, diagonal, curved lines, dotted lines, and basic shapes, forms, geometrical shapes and non geometrical shapes, drawing balance, paper balance, freehand drawings, creating image using combinations of different lines.

UNIT II SHADING TECHNIQUE 12

Light and Dark, and teaching different tonal values, teaching different shading technique, shading with different objects, Fine shading and academic style shading, natural light shading and artificial light shading, study of different textured shading objects, creating different textured shading, study of low and high light tonal values, explain mid tone shadings creating art image using all shading technique.

UNIT III STILL LIFE 12

Still life, and variety of still life's, composing of still life, teaching portrait composing, and landscape composing, composing still life using basic geometrical shapes, Explain Different between organic still life and inorganic still life, doing still life drawing using different shading style, study of organic still life, study of fruit, vegetables, flower, plants, and study of inorganic still life, wooden geometrical objects, cloths studies, metal objects, glass objects,

UNIT IV PERSPECTIVE DRAWING 12

Perspective drawings, Explain eyelevel line, vanishing line and vanishing point, teaching types of perspectives, one point perspective, two point perspective, and three point perspectives, study of perspective in buildings cape, learning intercross measuring meatheads, applying all three perspective in basic geometrical shape, seascape, cityscape.

UNIT V BASICS OF PORTRAIT 12

Study of face features Eyes, Nose, Ear, lip, Study of different views and features, Front view, profile view, one third view, key sketch drawing measurement of portrait, Geometrical understanding in face features, Shading in different views and angle.

Total: 60hrs

Course Outcome:

At the end of this course, the student will be able to

CO 1. Understand the fundamentals of drawing by shapes, lines, geometry, paper balance and drawing methods.

CO 2. Studying the process of shading technique form light and texture to create photorealistic things.

CO 3. Understand the process of compositing from various elements and developing the proper still life drawing from various methods

CO 4. Understand the importance of perspective concepts from methods and create a different perspective drawing for single object.

CO 5. Preparing a Portrait of human are living things from the different angle.

TEXT BOOKS:

1. Novak and Henry C. Spencer, “Basic Technical Drawing,” Student Text, Glencoe/Mcgraw-Hill; 6th Revised edition, March 1994
2. Wayne Enstice and Melody Peters, “Drawing: Space, Form, and Expression,” Pearson, 2 edition, Aug. 7. 1995.

REFERENCE BOOKS:

1. Philip W. Metzger “The Art of Perspective”, North Light Books; illustrated edition, 2007
2. Wolf Rachel, “Basic Drawing Techniques”, North Light Books, Sept. 15 1991.

Course Objective: Students will demonstrate knowledge of the bone structure of the human skeleton and the body's muscle structure. Students will be able to draw the human figure accurately displaying normative proportional relationships of the body's parts to the whole. Students will depict the figure in a variety of poses using foreshortening; Students will convey gesture, the illusion of expressive movement, when drawing the figure spontaneously in very brief periods of time.

UNIT I SKELETON STUDY 12

Understanding skeleton forms, head, rib bone, pelvic bone, hand and fingers, legs, three views of the head and the skull, The study of different views of skeleton, movement of bones, front, back, side views of skeleton.

UNIT II MEASUREMENT OF ANATOMY 12

Measurement of anatomy, male and female, head calculation measurement, eye calculation measurement, different of male anatomy measurement and female measurement, comparing male and female face measurement horizontal and vertical balance of anatomy,

UNIT III MALE AND FEMALE ANATOMY 12

Comparing muscle of male and female anatomy basic different of male anatomy, and female anatomy, muscle formations on skeleton, comparing feature, head, chest, hip, and pelvic , hand and elbow position, line difference of male and female

UNIT IV POSING AND BALANCE 12

Human body movements, balance of movement, life of action, forms and postures, Casual poses, sports movements, dancing movements, rest poses, walking movements for old man young man, different walking styles

UNIT V MOVEMENT STUDY 12

Live movement study, study human movements in different places, beach, market, road, speed line drawing. Deep study of movement, movement study for painting, statue, story board, and illustration,

Total: 12 Hrs

OUTCOME:

At the end of the course, learners will be able to:

- CO1:** understand the inner form of human anatomy to get knowledge for illustration.
- CO2:** understand the measurement of anatomy to learn accurate composing the human figure.
- CO3:** understand difference between male and female forms and shape anatomy proposition.
- CO4:** understand the balance of human anatomy and posing for making art object.
- CO5:** gaining the different movement of human and its line of action.

TEXT BOOKS:

1. Gottfried Bammes, "Complete Guide to Life Drawing", Search Press, October 1, 2011.
2. George B. Bridgman, "Constructive Anatomy", Dover Publications, June 1, 1973.

REFERENCE BOOKS:

1. David K, "The Human Figure", Penguin Books; Reissue edition Sept 15, 1975.
2. Eliot Goldfinger, "Human Anatomy for Artists", Oxford University Press, 1st edition November 7, 1991.

Course Objective: At the end of the course, the student is able to effectively manipulate the elements and principles of general and relative proportion to create a representational figure and composition. Explore the structural, compositional implications of modeling clays as a sculpting material. Have a basic technical understanding of modeling techniques, clays, modeling tools, armatures for figure sculpture.

UNIT I INTRODUCTION TO CLAY MODELING 6

Introduction to Clay Modeling Sculpture, Eye, Nose, Lips modeling Hand material preparing, Exploring 3D form Emphasizes drawing for sculpture, concept development armature , expression - concepts and comprehension of 3D space, material preservation, making basic human forms, animal forms.

UNIT II TOOLS AND HANDLING TECHNIQUE 6

Techniques and tools, carving tools, modeling tools, wire tools, wooden tools, plastic tools, Adding technique, carving technique, Roughing out, Removing Clay, Maneuvering, Repositioning and Detailing.

UNIT III MODELING METHODS 6

Pinch pot, coiling and slab techniques, Slab Method, modeling with armature, medaling in block clay, Relief medaling, low relief and high relief modeling, terracotta modeling, hollow modeling, solid medaling,

UNIT IV MODELING HUMAN 6

Drawing for modeling, concept for sculpture, measurement of sculpture, armature design, pedestal design, choosing pose or movement, skeleton forms, adding muscles forms, face modeling, Body modeling , flowing anatomy, detailing, finishing,

UNIT V CREATURE MODELING 6

Idea, concept, scribble drawing, Drawing for modeling, adding extra features, creating new textures, measurement of sculpture, armature design, choosing pose or movement, skeleton forms, adding muscles forms, face modeling, Body modeling , flowing anatomy, detailing, finishing, weapons making.

Total: 30 Hrs

Course Outcome

At the end of the course, learners will be able to:

CO1: prepare and handling materials for clay modeling.

CO2: understand the tools usage of tools for modeling and measuring.

CO3: studying different methods of modeling style.

CO4: make armature and miniature modeling.

CO5: Create own character and creature modeling in clay

TEXT BOOKS:

1. Bruno Lucchesi, “Modeling the Figure in Clay”, Watson-Guption Publications, 30th Edition,

April 1, 1996.

2. Katherine Dewey “Creating Life-Like Figures in Polymer Clay”, Potter Craft, 29 April 2008.

REFERENCE BOOKS:

1. Daisy Grubbs, “Modeling a Likeness in Clay Hardcover”, Watson-Guptill, August 1, 1982.
2. Susanna Oroyan, “Fantastic Figures: Ideas and Techniques”, C&T Publishing, January 1, 1995.

Course objective: The objective is to learn the techniques of graphical outputs through tools and utilize them. Students will know the process of using the tools for various digital outputs like pencil drawings, double exposure, posters, color gradation and restoration. Thus, enhancing the quality of digital media.

UNIT I INTERFACE, SELECTION&RETOUCHING 6

Introduction of Graphics design – About Photoshop - Getting Started with Photoshop-Working with Basic selection -Working with Images - Layer concepts - Colour correction –Photo retouching

UNIT II USAGE OF TOOLS 6

Painting in Photoshop - Working with the pen tool -Mask effect- Effective Title making-Creating special effects – Creating Web templates- Exporting your work to various formats. Using HDR toning for images, variations, filters and gallery.

UNIT III CREATING DYNAMIC OUTPUTS 6

Introduction of Illustrator, Interface of illustrator, Dynamic Design Tools, Digital Designing works, Front-page design, Making Clipart, Tracing techniques, Business cards ,Banners and posters. Using shapes and lines to complete digital works.

UNIT IV DESIGN PRINCIPLES AND TEXT 6

Vector Art Design principles-Logo/Flier Design, Working with Text, Colour and Graphics and Layout Handling Page Elements Multiple Pages, Typography for any digital work like brochures, Pamphlets etc...

UNIT V TITLE ANIMATION, PRINT MEDIA 6

Image compositing, print ads making, Magazine, Adjusting Print Settings, color grading for printing work and vector for digital printing, Title creation for various designs.

Total: 30 Hrs

Course Outcome

At the end of the course, learners will be able to:

CO1: Understanding graphic design and working in Photoshop with images and layers

CO2: Creating special effects and web templates and exporting in different formats.

CO3: Designing Business cards, Banners and posters with illustrator

CO4: Designing logo and Typography for any digital work like brochures, Pamphlets.

CO5: Making print ads and techniques to print them.

TEXT BOOKS:

1. Foley, Van Damn, Feiner and Hughes, Computer Graphics: “Principles and Practice” Addison Wesley”2003.
2. Gomez and Velho “Image Processing for Computer Graphics”, library of congress,

September 2013.

REFERENCE BOOKS:

1. Graphic Design, “Referenced: A Visual Guide to the Language, Applications, and History of Graphic Design” ,Bryony Gomez-Palacio), Armin Vit, 2012.
2. Adobe Photoshop CS6 Classroom in a Book by Adobe Creative Team,2012.
3. Adobe Photoshop CS6: Learn by Video: Core Training in Visual Communication by Kelly McCathran and video2brain ,2012.

நோக்கம்: சங்க காலம் தொடங்கி தற்காலம் வரையிலும் தமிழில் உள்ள
பைப்பிலக்கியங்களை இப்பாடம் அறிக்கம் செய்கின்றது. தமிழ் இலக்கியத்தில்
தேர்ந்தெடுக்கப்பட்ட மிக உயரியமான செய்யுட்கள், கவிதைகள், கதைகள், உரைநடை
ஆகியவற்றைக் கொண்டு இப்பாடம் கட்டமைக்கப்பட்டுள்ளது. மாணாக்கரிடம்
இலக்கியத் தேடலை உய்வாக்குவதும், தற்சார்முடைய அறிவை மேம்படுத்துவதும்
இப்பாடத்தின் நோக்கமாகும்.

அலகு 1 செவ்வியல் இலக்கியங்கள்

12 மணி நேரம்

திக்குறள் - அன்முடைம, ஓக்கமுடைம, பெரியாரைத்துணைக்கோடல் - னுள்ளஅதிகாரங்கள்
குடிமுடையம்.

முறநாடு - பாடல் எண்: 18, 55, 182, 183, 192 - ஐந்து பாடல்கள்.

குடிமுடையம் - பாடல் எண்: 2, 167, 27, 202, 184 - ஐந்து பாடல்கள்.

அலகு 2 காப்பியங்கள்

12 மணி நேரம்

சிலப்பதிகாரம் - கனாத்திறம் உரைத்தகம் காலை குடிமுடையம்.

மணிமுடிமுடைம - பவத்திறம் அகக எனப் பாலை நோற்ற காலை குடிமுடையம்.

கம்பராமாயணம் - மந்தைரசு குடிமுடிமுடைம (தேர்ந்தெடுக்கப்பட்ட ஒன்பது பாடல்கள்).

அலகு 3 கவிதையும் டுக்கவிதையும்

11 மணி நேரம்

பாரதிதாசனின் 'தமிழ்மக்கம்' - (i) நெஞ்சு பதைக்கும் நிலை - (ii) இயப்பைதவிட இறப்பு நன் - இரண்டு
கவிதைகள்.

ஈரரகு தமிழன்பனின், "அந்த நந்தனை எரித்த நெய்ப்பின் மிச்சம்" என்றும் தொகுதியில்

இடம்பெற்றுள்ள 'விகிறு' என்றும் டுக்கவிதை.

அலகு 4 சிடுகைதகள்

12 மணி

நேரம் தி. ஜானகிராமனின் 'சுத்தி வைத்தியம்'

கி. ராஜநாராயணனின் 'கதா' - இரண்டு கைதகள்

வைவரத்தி் எ஑ுதிய 'சிற்பியே உன்னைச் செக்குகிறேன்' ஑஑வழிம்

மொத்தம்: 60 மணி நேரம்

கல்வித்திட்டப் பயன்கள் (Programme Outcome): ஁ங்க இலக்கியம் மதொடங்கி இக்கொல இலக்கியம் வறரயில் அறமந்த இலக்கியங்களின் அறிமுகமொக ஒருெில இலக்கியங்களில் இருந்து பொடப்பகுதிகள் நதர்வு மெய்யப்பட்டு தமிழிலக்கியம் என்ற தறலப்பில் மொ வர்களுக்குக் கற்பிக்கப்படுகிறது. இறவ இலக்கிய மவளிப்பொட்டுத் தன்றமறய உர்த்துவதொக அறமகிறது.

பாட ஑ல்கள்

1. இரவிச்சந்திரன். சு. (ப.ஆ), "செய்யுள் திரட்டு", வேல்ஸ் பல்கலைக்கழகம், ஑தற்பதிப்பு, 2008.
2. வைவரத்தி். இரா., "சிற்பியே உன்னைச் செக்குகிறேன்", தியமகள் நிலையம், பதினெழாம் பதிப்பு, 2007.

பார்வை ஑ல்கள்

1. பாலச்சந்திரன். சு., "இலக்கியத் திறனாய்வு", நிய செஞ்சரி ஑க் ஹஸ், பத்தாம் பதிப்பு, 2007.
2. மாத்தையன். பெ., "தமிழ்ச் செவ்வியல் பைடப்டுகள்", நிய செஞ்சரி ஑க் ஹஸ், ஑தற்பதிப்பு, 2009.
3. வரதராசன். ஑., "குறள் காட்டும் காதலர்", பாரி நிலையம், ம஑பதிப்பு, 2005.

Course Objective: To enable the students to have the knowledge in contemporary literature of the modern era. It also provides an idea how translation to be effected.

UNIT I KAHANI AUR EKANKI 12

Poos Kee Raat., Duzhazar

UNIT II EKANKI AUR KAHANI 12

.Vaapasi, Akeli, . Akbhari vigyapan

UNIT III KAHANI AUR ANUVAD 12

Sharandatha - Anuvad anuched angreji se hindi me karne ke liye.

UNIT IV EKANKI AUR ANUVAD 12

Raat ke Raahi Main Bhi Maanav hoon Anuvad anuched angreji se hindi me karne ke liye.

UNIT V KAHANI ,EKANKI AUR ANUVAD 12

Parda - Yeh Meri Janma Bhoomi Hai -anuvad anuched angreji se hindi me karne ke liye.

Out Come:

- This story explains the problems faced by the farmers 'Upanyas samrat Premchand' describes the life of a poor farmer who represents present day's situation
- **'Das hazar'(ekanki), Translation** Author 'Uday Shankar bhatt' criticized the rich&stingy person's behaviour and explains the importance of human values in a humorous manner. By translating the English passage into Hindi, students learn the rules which should be followed while translation.
- Female writer 'Usha priyamvada' describes the mentality of a retired person in a beautiful manner
- **'Akhbaari vijnapan'(ekanki), Translation** This humorous story written by 'chiranchith' points out the problems occur due to Carelessness&lack of communication.
- Writer 'Mannu bhandari' describes the condition of middle aged woman left lonely who longs only for love &affection¬hing else.
- **Raat ke raahi', (ekanki), Translation** 'Vrajabhushan' shows the clear picture of cunning woman and creates Awareness
- Written by 'Yashpal', this story brings the clear picture of problems Faced by a poor muslim family.
- **'Maim bhi maanav huum'(ekanki), Translation** Author 'vishnu prabhakar' describes the kalinga war&reasons behind samrat Ashok's change of mind.
- This story written by 'Ajneya explains the situation of Indian people who lived in Pakistan region after separation .
- **'Yah meri janma bhumi hai''(ekanki), Translation** 'Harikrishna premi' points out the patriotism of a british girl who Was born in India &also the country's condition at that time.

Total: 60 Hrs

TEXT BOOK:

1.Sankalan Kahani evam Ekankied by Dr.N.Lavanya, Mayura Publishers, edition 2010

Course Objective: To provide grammar and vocabulary skills to the students. To enable the students have an idea of the French Culture and Civilization

UNIT I	LEÇONS 10 – 11	12
	Leçons : 10. Les affaires marchent,- 11. Un après midi à problèmes- Réponses aux questions tirés de la leçon - Grammaire : Présent progressif, passé récent ou future proche - Complément d'objet directe - Complément d'objet indirecte.	
UNIT II	LEÇONS 12 – 13	12
	Leçons : 12. Tout est bien qui fini bien,- 13. Aux armes citoyens – Réponses aux questions tirés de la leçon - Grammaire : Les pronoms « en ou y » rapporter des paroles - Les pronoms relatifs que, qui, ou où ,	
UNIT III	LEÇONS 14 – 15	12
	Leçons 14. Qui ne risqué rien n'a rien,- 15. La fortune sourit aux audacieux – Réponses aux questions tirés de la leçon - Grammaire : Comparaison – Les phrases au passé composé	
UNIT IV	LEÇONS 16 – 18	12
	Leçons16 La publicite et nos reves 17 La france le monde 18 Campagne publicitaire Réponses aux questions tirés de la leçon - Grammaire :- Les phrases à l' Imparfait - Les phrases au Future	
UNIT V	COMPOSITION :	12
	A écrire une lettre de regret// refus à un ami concernant l'invitation d'une célébration reçue- A écrire un essaie sur un sujet générale - A lire le passage et répondre aux questions	

Total : **60 Hrs**

Course outcome

- This enable students to learn the language without any grammatical errors.
- As a result of the content makes the students to known about the types of pronouns and their useage.
- This imparts the students in order to develop their basic writing skills.
- Enable students for framing the basics sentence.
- Making the students community to know the french format of letter writing and essay writing.

TEXT BOOK:

1. Jacky Girarder & Jean Marie Gridlig, Méthode de Français Panorama , Clé Internationale , Goyal Publication, New Delhi., Edition 2004

REFERENCE BOOKS:

1. Dondo Mathurin, “ Modern French Course”, Oxford University Press, New Delhi., Edition 1997
2. Paul Chinnappane “ Grammaire Française Facile” , Saraswathi House Pvt Ltd, New Delhi, Edition 2010

Course Objective:

- To enable the students to develop their communication skills effectively. To make students familiar with the English Language.
- To enrich vocabulary in English
- To develop communicative competent

UNIT I	PROSE-I	12
	<ol style="list-style-type: none"> 1. On Saying 'Please' - A.G. Gardiner 2. Women, Not the Weaker Sex - M.K. Gandhi 3. The Sky is the Limit - Kalpana Chawla 	
UNIT II	PROSE-II	12
	<ol style="list-style-type: none"> 4. Polluting the World - Edgar I. Baker 5. Dimensions of Creativity - Dr. A. P. J. Abdul Kalam 6. The Message of Visva - Bharati 	
UNIT III	SHORT STORIES	12
	<ol style="list-style-type: none"> 1. Open Window - H. H. Munro (Saki) 2. The Lion's Share - Arnold Bennett 3. The Sparrows - K.A. Abbas 4. The Cop and The Anthem - O- Henry 5. The Necklace - Guyde Maupassant 	
UNIT IV	FUNDAMENTAL GRAMMAR SKILLS	12
	<ol style="list-style-type: none"> 1. Question Tags 2. Concord 3. Reported Speech 4. Idiom and Phrases 	
UNIT V	ADVANCED GRAMMAR SKILLS	12
	<ol style="list-style-type: none"> 5. Conditional Clauses 6. Cause and Effect 7. Simple, Complex, Compound 8. Framing Questions 	

Total: 60 Hrs**Course outcome**

- To construct sentences owing to advanced grammar skills taught.
- To prove better communicative ability because of illustrations from fundamental grammar.
- To prove their skill in writing sentences after the modals of American, British and Indian English writers.
- To develop different sensibilities in approaching life.
- To solve life's problems as highlighted in the selections.

TEXT BOOK:

1.Rao, Shoba B. “ Empower with English, Sun Beams – II”. Emerald Pub: Chennai. 2012.

CO5: Understand the lighting, texturing and rendering techniques to render a quality output

TEXT BOOKS:

1. Kelly L. Murdock , “Kelly L. Murdock's Autodesk 3ds Max 2015 Complete Reference Guide”- Perfect Paperback ,2014.

2. Kelly L. Murdock, “Autodesk Maya Basics Guide 2015”, 2014.

REFERENCE BOOK:

1. William Vaughan, “Digital Modeling”-,First Edition.2004.

Course objective: This course will take students through each step of modeling a character from head to toe, from the first polygon to the final hair. Students study creating and modifying curves, and the principles behind creating curves and surfaces. Students study the differences in character modeling and hard surface modeling, as well as the tools used in Maya for creating each technique and effect. Students also study the various polygon tools available in Maya and how they are used in modeling and creation. Students will also sample the Paint Effects tool in Maya to create and modify textures used in character modeling.

UNIT I PRINCIPLES OF MODELING 12

Character design preparation, Basic anatomy Creating reference images, Topology and edge flow, Box modeling, Edge Loop Modeling. Poly Count.

UNIT II CARTOON CHARACTER MODELING 12

Hand Modeling, Foot Modeling, Body Modeling and Head Modeling, Cloths, Hair and Props Modeling. Construction techniques for clean edge flow.

UNIT III PHOTOREALISTIC CHARACTER MODELING 12

Hand Modeling, Foot Modeling, Body Modeling and Head Modeling, Cloths, Hair and Props Modeling.

UNIT IV UV LAYOUT 12

Types of Mapping, Uv Tools, Unwrapping techniques. Mapping complete character.

UNIT V TEXTURING 12

Using pre-made textures, Skin shaders, Editing and creating textures in Photoshop, Creating Hair and Fur in Paint effects, Also creating texture in 3D paint.

Total: 60 Hrs

Course Outcome:

CO:1 Student will learn the human anatomy

CO:2 Student can understand the various types of modelling

CO:3 Student will get understanding on polygon modeling techniques

CO:4 Understanding on Texturing and its types

CO:5 Student can learn the different types Skin shaders and will get knowledge on editing a texture using supporting software

TEXT BOOKS:

1. Maya Character Modeling and Animation (Graphics Series) Paperback – Import, 20 Jul 2006 by Tereza Flaxman

2. Advanced Maya: Character Modeling DVD-ROM – Sep 2003 by Kenny Cooper (Author), Jim Lammers (Author)

REFERENCE BOOKS:

1. William Vaughan, “Digital Modeling”-,First Edition.2004.

Course Objective: This course will take students through the fundamentals of Mudbox. From building a basic mesh in Maya and exporting the mesh into Mudbox for final detail work. The class may be covering topics on interface layout, digital sculpture, texturing in Mudbox, and exporting normal maps, and displacement maps back into Maya.

UNIT I	SCULPTING CONCEPTS	12
Comparing Traditional and Digital Sculpting, Proportions and measurements, Anatomy, Expression and Emotion		
UNIT II	INTRODUCING TO MUDBOX	12
Interface tools, Setting up the scene, Creating layers and subdividing. Roughing in the shape Sculpting details, Adding texture with a stencil.		
UNIT III	SCULPTING A CHARACTER	12
Sculpting Hand, Foot, Torso and head of a character. Refining the model.		
UNIT IV	PAINTING SCULPTURES	12
Paint tools, Paint layers, Creating basic skin, Adding depth and color to skin, Adding details, Viewport rendering.		
UNIT V	CREATING MAPS	12
Normal maps, Displacement maps, Extracting maps, Exporting maps and low resolution model to maya.		

Total: 60 Hrs

Course Outcome:

- CO:1** Student will learn the human anatomy
- CO:2** Student can understand the various types of sculpting
- CO:3** Student will get understanding on polygon sculpting techniques
- CO:4** Understanding on Texturing and its types
- CO:5** Student can learn the different types Skin shaders and will get knowledge on editing a texture using supporting software

TEXT BOOKS:

1. Digital Sculpting with Mudbox: Essential Tools and Techniques for Artists Paperback – Import, 28 May 2010 by Mike de la Flor (Author), Bridgette Mongeon (Author)
2. Introducing Mudbox Paperback – Import, 23 Sep 2010 by Ara Kermanikian

REFERENCE BOOKS:

1. Modeling and Texturing Techniques with Maya and Mudbox by Michael Ingrassia

Course objective: The objective is to deliver the techniques of keyframing animation, path animation and reactive animation, students learn the basics of animation.

UNIT I ANIMATION TOOLS 9

Timeline, Range slider, Autokey, play blast, Playback settings, Keyframing animation, Path animation, Reactive animation, set driven, Bake animation, Graph editor, Dope Sheet, Track editor, Camera sequencer.

UNIT II PRINCIPLE OF ANIMATION 9

Squash and Stretch, Anticipation, Staging, Straight Ahead Action and Pose to Pose, Follow Through and Overlapping Action, Slow In and Slow Out, Arc, Secondary Action, Timing Exaggeration, Solid drawing, Appeal.

UNIT III BOUNCING BALL AND GRAPH EDITOR 9

Animating the ball, setting keys, Editing, Moving, Copying and Pasting Keys, Squash and Stretch, Editing Animation Curves and Tangents, Pre-infinity, Post infinity, bake channels, Mute channels, Pin channels, Simplify curves, Animation filters.

UNIT IV DEFORMERS 9

Nonlinear deformer, bend, squash, flare, sine, twist, wave, soft modification, delta mush, shrink-wrap, Lattice, Blend shapes, Cluster, Wrap, Wire, Wrinkle, Sculpt, Jiggle, Edit deformer, paint weights.

UNIT V CREATING SPACESHIP ANIMATION 9

Create the starfield, creating three planets, Creating the planet textures, create more planet shaders Modeling Spaceship, Motion Path animation, Animate spaceship, Edit the path curves. Animating Camera.

Total: 45 Hrs

Course Outcome:

- Co1: Understanding on time frames
- Co2: Understanding on basic Animation
- Co3: Get Knowledge on 3D Animation Concepts
- CO4: Understand on Editind And acting
- CO5: Get knowledge on Composition

TEXT BOOKS:

1. Richard Williams “The Animator’s Survival Kit”, Faber & Faber, 4th Edition, 2012.
2. Mastering Autodesk Maya 2016 by **Todd Palamar** (Author)

REFERENCE BOOKS:

1. Autodesk Maya 2017 Basics Guide By Kelly L. Murdock

நோக்கம்: தற்கால அன்றாடத்தேவைக்குரிய வகையில் தமிழ்மொழியைச் செம்மையாகப் பயன்படுத்த வேண்டும் என்றும் நோக்கில் இப்பாடம் உடுவாக்கப்பட்டுள்ளது. மாணாக்கரின் வேலைவாய்ப்பு நேர்காணல்கள் மற்றும் குடி உரையாடல்களை எதிர்கொள்வதற்கேற்ற பேச்சுத்திறன் மேம்பாடு, செய்தித்தாள்களை ஜட்பமாக அடிகும்விதம், சிறந்த காதலங்களை எடுத்துவதற்கான பயிற்சி போன்ற பயன்பாடு சார்ந்த மொழிப்பயிற்சியை இப்பாடம் அளிக்கின்றது.

அலகு 1 மொழி

11 மணி நேரம்

பிழை நக்கி எடுத்தல் - ஒற்றுப்பிழை நக்கி எடுத்தல் - தொடர்பிழை நக்கி எடுத்தல் - ஒற்று மிகும் இடங்கள் - ஒற்று மிகா இடங்கள் - பிற மொழிச் சொற்களை நீக்கி எடுத்தல் - பயிற்சிகள்.

அலகு 2 பேச்சு

13 மணி நேரம்

பேச்சுத்திறன் - வளக்கம் - பேச்சுத்திறனின் அடிப்படைகள் - வகைகள் - மேடைப்பேச்சு - உரையாடல் - குடிவாக உரையாடல் - பயிற்சிகள். தலைவர்களின் மேடைப் பேச்சுகள் - பெரியார் - அண்ணா - கைலாசர்.

அலகு 3 எடுத்திறன்

12 மணி நேரம்

கைலச்சொல்லாக்கம் - தேவைகள் - கைலச்சொற்களின் பண்புகள் - கைலச்சொல்லாக்கத்தில் தவிர்க்க வேண்டியவை - அறிவியல் கைலச்சொற்கள். காதல் - வகைகள் - அடிவகைக் காதல்கள் - பயிற்சி - அறிஞர்களின் காதல்கள் - காதல்களின் வழி கற்பித்தல் - சில அறிஞர்களின் காதல்கள் - நேடி...

அலகு 4 மொழிபெயர்ப்பு

13 மணி நேரம்

மொழிபெயர்ப்பு அடிப்படைக் கோட்பாடுகள் - மொழிபெயர்ப்பு உறைகள் - மொழிபெயர்ப்பாளரின் தகுதிகள். மொழிபெயர்ப்பு வகைகள் - சொல்லுக்குச் சொல் மொழிபெயர்த்தல் - துவல் - கட்டற்ற மொழிபெயர்ப்பு - மொழியாக்கப்படைப்பு - இயந்திர மொழிபெயர்ப்பு - கடித்பெயர்ப்பு - மொழிபெயர்ப்பு நடை - மொழிபெயர்ப்பு சிக்கல்களும் தீர்வுகளும். பயிற்சி: அடிவகைக் காதல்களை மொழிபெயர்த்தல் (ஆங்கிலத்திலிருந்து தமிழுக்கு).

அலகு 5 இதழியல் பயிற்சி

11 மணி நேரம்

இதழ்க்குத் தலையங்கம் எழுதல் - ளல் மதிர்ரை எழுதல் - சாதையாளரை

நேர்காணல் - நிகழ்ச்சியைச் செய்தியாக மாற்றல்.

மொத்தம்: 60 மணி நேரம்

கல்வித்திட்டப் பயன்கள் (Programme Outcome): வீனக் கொலத்திற்கும் நதறவக்கும் ஏற்றவொறு மமொழியின் நதறவறய மொ வர்கள் ெொிவர அறிந்து மகொள்ள நவண்டும் என்ற ந ொக்கில் பயன்பொட்டுத் தமிழ் என்ற பொடப்பகுதி அறமக்கப்பட்டுள்ளது. தவறின்றித் தமிழ் எழுதவும் அறிவியல் கறலச் மொற்கறள உருவொக்கவும் நபச்சுத் திறறன வளர்ப்பதற்கொகவும். மமொழிமபயர்ப்பு, இதழியல் ெொர்ந்த அறிவிறனப் மபறுவதற்கும் அந்தந்த துறற ெொர்ந்த பிகளில் நவறல வொய்ப்பு மபறுவதற்கும் இப்பொடத்திட்டம் பயன்படுகிறது.

பார்வை ளல்கள்

1. ஈஸ்வரன்.ச., சபாபதி.இரா., "இதழியல்", பாவை பப்ளிகேஷன்ஸ், தற்பதிப்பு, 2004.
2. ஈஸ்வரன்.ச., "மொழிபெயர்ப்பியல்", பாவை பப்ளிகேஷன்ஸ், தற்பதிப்பு, 2005.
3. எட்கர் தார்ப், ஷோவிக் தார்ப், "நேர்கேத் தேர்வில் வெற்றிபெற", கிழக்குப் பதிப்பகம், இரண்டாம் பதிப்பு, 2009.
4. சுப்பிரமணியன்.பா.ரா., ஞானசுந்தரம்.வ., (ப.ஆ) "தமிழ்நடைக் கையேடு", இந்தியமொழிகளின் நவண் நிவனம், மைசூர் மொழி அறக்கட்டளை மற்ஜம் தஞ்சைத் தமிழ்ப் பல்கைலக்கழகம் - வெளியீடு, நான்காம் மீள்பதிப்பு, 2010.
5. சுட்டெர்ட்டயார்.ந., "தமிழ் பயிற்ஜம் ளறை", மெய்யப்பன் பதிப்பகம், ஐந்தாம் பதிப்பு, 2006.

Course Objective: To help the students to have in depth knowledge of Literature. It makes the students to acquire more about the medieval period through the literary works.

UNIT I	PRACHIN KAVYA HINDI SAHITYA KA ITIHAS	12
Kabir- Hindi bash aka vikas – Hindi sahitya kaa aavirbahv		
UNIT II	PRACHIN KAVYA HINDI SAHITYA KA ITIHAS	12
Surdaas, Tulsidass. Hindi sahitya kaa kaal vibhajan, aadikal, kaa Parichay		
UNIT III	PRACHIN KAVYA HINDI SAHITYA KA ITIHAS	12
Rahim, aadikaal kaa namkran, paristhitiyan, racha evam rachnaakar		
UNIT IV	BHAKTI KAAL, REETHI KAA	12
Bhakti kal kaa vibhajan paristhitiyan- racha evam rachnaakar - Reethikal ke prakaar, rachna evam rachnakar		
UNIT V	PRACHIN KAVYA EVAM RACHNAKARON KAA PARICHAY	12
Bihari - Chandbardayee, Ameerkhusaro, Kabir, Surdas, Tulsidas Jaayasi, Kesahv das Bhushan,		

Total: 60 Hrs

TEXT BOOK:

1. Prachin evam Aadhunik Kavya Sankalan ed by Dr.N.Lavanya, Mayura Publishers, edition 2011

Outcome

- To understand the writing style of Kabir& also learn valuable messages
- To learn the precious poems of Surdas&SriKrishna Leela.
- To get the opportunity to learn the poems of Ram bhakthi poet Thulssi das .
- The poems of Rahim are different &valuable and students will get confidence &ideas to tackle the problems ahead.
- To understand the writing style of Bihari & the important messages

REFERENCE BOOK:

1. Hindi Sahitya kaa Itihas, By Dr.Nagendra, Raj kamal Prakashan, 1997

Course Objective: To strengthen the Grammar and Composition in French language.
To train the students to enhance their skills in French language for communication.

UNIT I **12**

Leçon 16 - La famille Vincent (Page 44) - Grammaire : Passé composé'

Leçon 29 - Vers l'hôtel (page 80) Grammaire : Impératif, A mettre les phrases du singulier au pluriel

UNIT II **12**

Leçon 40 - L'épicerie, les légumes et les fruits (page 112) – Grammaire : Présent de l'indicatif

Leçon 44 - La poste (page 124) – 1 Grammaire : A mettre les phrases à l'imparfait

UNIT III **12**

Leçon 51 - Le café et tabac (page 142) - Grammaire : A changer les phrases en Interrogatif

Leçon 58 - La Chasse et la pêche (160) - Grammaire : Le plus que parfait

UNIT IV **12**

Leçon 61 Un mariage à la campagne(page 170) - Grammaire –A changer au participe présent

UNIT V **12**

Composition : A écrire une lettre à un ami l'invitant à une celebration differente ex : mariage –

A faire un essaie sur un sujet générale - A lire le passage et répondre aux questions

Total : 60 Hrs

Course outcome:

- Student could differentiate between the past imperfect and past tense in a phrase.
- Students will learn about vocabularies related to content and will use it during conversations.
- Learners will frame sentences based on the grammar topics as mentioned.
- Students will learn the differences between present tense and present continuous tense.
- Students will write French letter based on relative subject as mentioned in content.

TEXT BOOK:

1. Les leçons ont été choisis et tirés de I & II degré de G. Mauger « Cours de Langue et de Civilisation Française » The Millennium, Publication Hachette, Edition 2002

REFERENCE BOOKS :

1. Dondo Mathurin, "Modern French Course", Oxford University Press, New Delhi., Edition 1997
2. Paul Chinnapan, « Saraswati Grammaire Française facile », Saraswathi House Pvt. Ltd., New Delhi., Edition 2010
3. Larousse, "Larousse French Grammar", Goyal Publication, New Delhi., Edition 1995

REFERENCE BOOKS:

1. Getting Started with Unity 5.x 2D Game Development By Francesco Sapiro.
2. Creating Games with Unity and Maya By Adam Watkins.

Course objective: In this course, student becomes familiar with the 2D software authoring environment and Flash terminology, Gain understanding of fundamental 2D animation software paradigms (Stage, Symbols, Library, Timeline), Create simple, tasteful animation effects. Learn to export and deploy animated content on the digital display.

UNIT I CREATING VECTOR SHAPES (PRE-PRODUCTION)

6

Introducing 2d animation software interface of using tools, Stage, Symbols, Scene, Color swatches, Library, Transformation, Object properties, Bitmap, Ruler, Grid, Guide, Snapping. Teaching how to create basic vector shapes using drawing tools, intersecting shapes within a single layer, Creating Complex Shapes with Intersecting Lines. Creating complex shapes using the combination of tools and techniques.

UNIT II CHARACTER CREATION FOR ANIMATION (PRODUCTION)

6

In this unit, students will be gaining various knowledge and important aspects that go into the creation of characters for animation. Students will be exploring the importance and roles of shape which forms the characters personality; these influence students to create characters in various artistic styles. This knowledge will give them to becoming a professional character designer

UNIT III TIMELINE AND LAYER CONCEPTS (PRODUCTION)

6

In this unit, student will explore the Timeline and its uses. Understanding of how the timeline organizes and controls a document's content in layers and frames. It also provides the knowledge in components of the Timeline like Layers, Frames (Key frames, In-betweens) and the play head. Students will explore through Timeline where the animation occurs in a document, including frame by frame animation, tweened animation and motion path.

UNIT IV PRINCIPLES AND ANIMATION TECHNIQUES (PRODUCTION)

6

In this Unit, Student will explore 12 principles of animation and how to move an animation on the specific platform.

UNIT V AUDIO-VIDEO (POST-PRODUCTION)

6

This is the stage where we unlock the secrets and techniques involved in compositing the foreground, background (characters, text, props, objects and elements) and syncing the audio to give weightage for the content/script in much more interesting way.

Total: 30 Hrs

Course Outcome

At the end of the course, learners will be able to:

CO1: Create vector shapes and backgrounds that incorporate principles of composition, perspective and colour, with speed, accuracy and dexterity, using a variety of tools.

CO2: Create 2D characters and environments that reflect the integration of graphic clarity, Design Principles, animation principles and concepts.

CO3:Incorporate technology effectively in the development of animation projects.

CO4: Communicate ideas, believable action and emotion effectively by employing principles of animation and development in all aspects with layer concepts

CO5:Refine personal narrative voice that holistically integrates with the elements of visuals and perform in order to deliver the quality outputs in animation.

TEXT BOOKS:

1. Pakhira Malay K, "Computer Graphics, Multimedia and Animation", Second Edition, PHI, 2010.
- 2.Preston Blair, "Cartooning: Animation 1 with Preston Blair: Learn to animate cartoons step by step Walter T. Foster, 2003

REFERENCE BOOKS:

1. Von Glitschka, "Vector Basic Training: Vector Basic Training: A Systematic Creative Process for Building Precision Vector Artwork", New Riders, 2011.
2. Sheila Graber, "Animation: A Handy Guide", Barron Publication, 2009.

Course objective: In this paper the student will know how to make a human model walk, run and jump in a path. The model's body movement is also taught. They are taught how to lip sync with the dialogues with two or more characters.

UNIT I FUNDAMENTALS OF ANIMATION FILMMAKING 6

This chapter introduces the fundamentals of the art of animation film making. The students are given a brief knowledge and exposure over the Persistence of vision, Understanding the story, concepts and characterization and basic cell animation techniques which are implied to modern computer animation.

UNIT II ANIMATION TECHNIQUES 6

This unit discusses about the four basic techniques of animation film making like Hand-drawn animation, Cut-out animation, Model animation or Stop motion animation, Computer animation or computer generated imagery.

UNIT III TYPES OF ANIMATION 6

This portion cover in brief over all the major types of animation implemented widely in Animation and film making industry such as Traditional animation or Classical 2D animation , Digital 2D animation, Digital 3D animation, Stop-motion animation, Mechanical Animation, Audio-Animatronics and Autonomatronics, Chuckimation, Puppetry Animation, Clay animation or Claymation , Zoetrope Animation, Cut-out animation, Sand Animation, Typography Animation, Paint-on-glass animation, Drawn-on-film animation, Experimental animation, Erasure animation, Pin-screen animation and Flip book Animation.

UNIT IV ANIMATION PRINCIPLES 6

Animation Principles and Process, Basic Animation with types of Balls. Working with Animation Editor and Tools. Animation Basics, Key frame Animation, Nonlinear Animation, Path Animation, Motion Capture Animation Geometry Caching with Animation Layers, Animation Menus, Animation Tools, Animation Windows and Editors- Animation Nodes

UNIT V ANIMATING TWO LEG AND FOUR LEG WITH DIALOGUES 6

Advanced Character Animation with Two Leg Animation (walk, run, Jump, Wight lifting etc.). Four Leg Animation (walk, run, Jump) Lip sync Animation. Single Character Animation with Dialogues , Two or more character interacting animation with Dialogues. Work Flow with Graph, Trax, Dope.

Total: 90 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1. Learn story, concept and film techniques.
- CO 2. Learn the animation tips and techniques.
- CO 3. Know different types of animation such as Claymation, cutout animation.
- CO 4. Understand the principles of animation and apply in character animation.
- CO 5. Learn basic character animation such as walk, run, jump and different types of body mechanics

TEXT BOOK:

1. Susan JolliffeNapier, "Anime from Akira to Princess Monoke: Experiencing Contemporary Japanese Animation" , Palgrave Macmillan Limited, 2007.

REFERENCE BOOK:

1. Richard Williams, "The Animator's Survival Kit", Faber & Faber, Limited, 2004,

Course objective: In this paper the student will know how to create bone setup, skin and controls a human model.

UNIT I CONCEPT OF RIGGING 6

Understanding the rigging IK and Fk Constraints. Forward Vs. Inverse Kinematics, A simple leg example. Forward Kinematics with Simple leg example. Inverse Kinematics, Constraints Working with Locators. Adding Pole Vector constraints to the elbows and Constraining the wrists to locators. Testing the character, Rigging Methods and Process. Create the IK handles, Restricting the heel rotation, Build a foot control hierarchy. Creating a control attribute and Set Driven Key, Adding Selection handles for Arms and shoulders

UNIT II INTRO TO IK SOLVER AND IK CHAIN 6

Intro to IK rotate plane solver, working with the IK Rotate Plane solver. Creating the arm joints and setting preferred angle, Setting up the IK Rotate Plane solver. Translating the end effector of the IK chain.

UNIT III BENDING AND TWISTING OF KNEE 6

IK and FK combination foot, Skeleton set-up-Setting up Single Chain IK- Parenting the IK and Orient constraints Parenting the IK - Bending toes and twisting the knee. Adding attributes.

UNIT IV CREATING MUSCLES 6

Muscles creator, converting mesh to muscles, Make capsule, Simple muscles, Skin setup, Paint muscle weight, Self and multi collision, Muscles cache.

UNIT V CONSTRAIN AND CONTROL RIG 6

Parent constrain, Point constrain, Orient constrain, Scale constrain, Aim constrain, Pole vector, create control rig, Create character set, Character mapper.

Total: 30 Hrs

Course Outcome

At the end of the course, learners will be able to:

CO1: Understand how to animate a model in 3D Viewport

CO2: Will Gain key knowledge in Key frames and graph editor

CO3: Will understand various types of constrains to constrain a character model

CO4: Understand rigging human model and constrain the rig as per anatomy of the model

CO5: Applying a real world motion to a 3D Created object

CO6: Gain knowledge on Facial expression for 3D Animation

TEXT BOOK:

1. Susan JolliffeNapier, “Anime from Akira to Princess Monoke: Experiencing Contemporary Japanese Animation” , Palgrave Macmillan Limited, 2007.

REFERENCE BOOK:

1. Richard Williams, “The Animator's Survival Kit”, Faber & Faber, Limited, 2004,

நோக்கம்: பண்டைத் தமிழரின் வாழ்வியல் நெறிகள் இயல்பானும் இயற்கையாக இணங்கிச் செல்வாக்கும்; மிகும் பழையானும் பண்பட்டமும். அன்பான அக வாழ்க்கையக்கூட செம்மையாகத் திட்டமிட்டுள்ளனர். பொழுதுபோக்கு, போற்றுகள், கைல, சமயம், அரசியல், அறிவியல் என அனைத்தும் தமிழர் சிறந்த விளங்குவதை விளக்கும் பாடமாக இந் துறை உள்ளது. அரசு வேலை வாய்ப்பிற்கான போட்டித் தேற்குக்கும் பயன்படும் வகையிலும் இப்பாடம் அமைந்துள்ளது.

அலகு 1 நாகரிகம், பண்பாடு

12 மணி நேரம்

சொற்பொருள் விளக்கம் - பண்டைத் தமிழர் வாழ்வியல் - அகம் - களம் - கற்க - குடும்பம் - விருந்தோம்பல் - உறவு உறவுகள் - சடங்குகள் - நம்பிக்கைகள் - பொழுதுபோக்கு - டும் - போர் உறவுகள் - நகைல் வழிபாடு - கொடைப்பண்ட.

அலகு 2 கைலகள்

12 மணி நேரம்

சிற்பம் - ஓவியம் - இசை - கூத்து - ஒப்பனை - அலகு அணிகலன்கள்.

அலகு 3 சமயம்

12 மணி நேரம்

சைவம் - வைணவம் - சமணம், பௌத்தம் வெளிப்படுத்தும் பண்பாடு.

அலகு 4 அரசியல்

12 மணி நேரம்

அரசு அமைப்பு - ஆட்சி உறை - உள்நாட்டு வணிகம் - வெளிநாட்டு வணிகம் - வாலி வகைகள் - நாணயங்கள் - நீதி உறை.

அலகு 5 அறிவியல்

12 மணி நேரம்

கல்வி - வேளாண்மை - வானியல் அறிவு - மருத்துவம் - கட்டுக்கலை.

மொத்தம்: 60 மணி நேரம்

கல்வித்திட்டப் பயன்கள்) Programme Outcome): தமிழர்களின் வொழுவியல் முறறகள், மதொன்றம், ஁கெரிகம், பண்பொட்டு முறறகறளப் பற்றி இலக்கியங்களின் வழித் மதெரிந்துமகொள்ளும் ந ஁க்கில் இப்பொடத்திட்டம் உருவொக்கப்பட்டுள்ளது. அரசுப் ப ி ஁஁ர்ந்த நதர்வுகளுக்கும், நபொட்டித் நதர்வுகளுக்கும் இப்பொடப்பகுதி உறுதுற யொக அறமயும்.

பார்வை ஁ல்கள்:

1. கெ.கெ. பள்ளை, "தமிழக வரலாட: மக்களம் பண்பாடம்", உலகத் தமிழாராய்ச்சிநிடிவனம், மீள்பதிப்பு, 2009.
2. பக்தவச்சல பாரதி, "தமிழர் மானிடவியல்", ஁அடயாளம், இரண்டாம் பதிப்பு, 2008.
3. தட்சிணார்த்தி. அ., "தமிழர் நாகரிகளம் பண்பாடம்", யாழ் ஁வளியீடு, மடிபதிப்பு, 2011.
4. தேவேநயப்பாவாணர். ஁., "பழந்தமிழ்ப்பதிப்பகம், நாகரிகளம் பண்பாடம்", தமிழ்மண் ஁சன்னை.
5. வானமாமலை.நா., "தமிழர் வரலாடம் பண்பாடம்", நிய ஁சஞ்சா ஁ ஹபஸ், ஆறாம் பதிப்பு, 2007.

Course Objective: To enable the students to acquire knowledge in journalism so as to enhance his skill in effective communication pertaining to Hindi language.

UNIT I AADHUNIK KAVITHA AUR RACHNAAKAR 12

Mythili Sharan Gupt - Apna Sansar, Aadhunik Rachnakar Hazaari prasad Diwedi,
Mahaveer Prasad Diwedi,

UNIT II AADHUNIK KAVITHA AUR RACHNAAKAR 12

Jayashankar Prasad Kamayani - Chinta, Aadhunik Hindi Rachanakar Premchand, Jainendra

UNIT III AADHUNIK KAVITHA AUR PATRAKARITHA 12

Mahadeviverma, Murjaya PhoolBhavani Prasad Mishra Patrakarita – paribhasha,, arth, prakar,
swaroop

UNIT IV AADHUNIK KAVITHA , PATRAKARITHA AUR RACHNAKAR 12

Mukthibodh Tum Logoan se door,Shamsher Bhadur Singh – Bharat kee aarathi,
Vigyapan- sampadan kala,-Nirala, -Pant- Mohan Rakesh

UNIT V AADHUNIK KAVITHA , PATRAKARITHA AUR RACHNAKAR 12

Prabhakar Machve Nimna Mdhya varg, **Patrakaritha-** samachar sankalan - Peeth patrakarita,
Rachnakaar - Fanishwaranath renu -Mannu bhandari,Bhagawaticharan Verma, Yashpal

Total: 60 Hrs

Course Outcome

- Rashtra kavi' Maithili sharan gupta' dreams about his life in a beautiful manner & describes how is world should be. Journalism plays a great role in the development of a country. Through this students get an opportunity to know about Hindi journalism & the developments took place gradually
- Taken from 'Jayashankar prasad' 's Kamayani , this poem explains the condition of human beings at different situations.
- 'Shri Gajanan madhav mukthi bodh' describes the present day's thought of a common man & expectations
- Poet 'Bhavani Prasad mishra ' points out the importance of love & affection and also the bad effects of enmity.
- 'Prabhakar machve' explains the condition of the middle class in 'Nimna Madhya varg 'Shamsher bahadur singh' 's poem 'Bharat ki aarathi' points out the importance of patriotism & our desires.

TEXT BOOK:

1. Prachin evam Aadhunika Kavya Sankalan ed by Dr.N.Lavanya, Mayura Publishers, edition 2011

REFERENCE BOOK:

1. Patrakarita Ek Paricaya by Dr.Madhu Dhawan, Bodh Prakashan, edition 1997

Course Objective:

To enable the students to strengthen their knowledge of grammar/composition.

To make the students to develop their skills of communication in French language.

UNIT I	12
Leçon 20 - Une grande Nouvelle (page 56) – Grammaire : A mettre les phrases au Future	
Leçon 46. - Le métro ; l'autobus (page 130) - Grammaire : A former ou à changer l'adjectif masculin ou féminin à l'adverbe - A trouver les noms qui corres- -pondent aux verbes	
UNIT II	12
Leçon 48. - A la Préfecture de police (page 132) - Grammaire : Les Pronoms relatifs	
Leçon 63 - Les sports (page 174) Grammaire : Le conditionnel présent	
UNIT III	12
Leçon 56 - A Biarritz, la plage (page 156) - Grammaire : Le future antérieure	
Leçon 57 - Dans les Pyrénées (page 158) - Grammaire : Le future antérieure suite)	
UNIT IV	12
Leçons 65 - A fin des vacances (page 178) Grammaire : A changer les phrases du pluriel - au singulier - Le présent du subjonctif	
UNIT V	12
Composition : A écrire une lettre de regret / refus à un ami concernant l'invitation d'une célébration reçue- A écrire un essaie sur un sujet générale - A lire le passage et répondre aux questions	

Total: 60 Hrs

Course outcome:

- Learners group will able to make sentences related to the content and its vocabulary.
- Learners group will able to make conversation based on the vocabularies related to content.
- Students will be doing comprehension d'ecrit based on the content.
- Learners group will be able to transform sentences from singular to plural or vice-versa.
- Learners group will able to do basic translations .

TEXT BOOK :

1. Les leçons ont été choisi et tiré de I &II degré de G .MAUGER « Cours de Langue et de
Civilisation Française » The Millenium, Publication Hachette, Edition 2002.

REFERENCE BOOKS:

- 1.Dondo Mathurin, “ Modern French Course”, Oxford University Press, New Delhi., Edition
1997
2. Paul Chinnapan, « Saraswati Grammaire Française facile », Saraswathi House Pvt. Ltd., New
Delhi., Edition 2010
3. Larouse, “Larouse French Grammar”, Goyal Publication, New Delhi., Edition 1995

Course objective: In this paper students will learn how to use lights in the 3D.They will take the preferred output from the software for the other works like gaming, film and education.

UNIT I UNDERSTANDING THE BASIC OF LIGHTING 12

Understanding the Art of Lighting.Understanding the color and composition,Understanding Lighting with the basic of Color and composition. 3d Lighting, Omni, spot light, direct light. Introducing Modifiers and Using the Modifier Stack. Drawing and Editing 2D Splines and Shapes - Modeling with Polygon

UNIT II KNOWING THE DIFFERENT TYPES OF LIGHTING AND OBJECT TRANSFORMING 12

Applying the Correct Light for the project.Linking and Unlinking the Lights Using Light Fog and light Glow. Environment and Volume Fog, Lighting an Interior with sunlight.Creating and Editing Primitive Objects and Selecting Objects. Setting Object Properties, Using Layers and the Scene Explorer and Transforming Objects. Adjusting Pivoting and Aligning and Snapping , Cloning Objects and Creating Object Arrays

UNIT III OTHER TYPE OF LIGHTS ADJUSTMENT FOR RIGGING. 12

Preparing for Successful Light rigs - 1-2-3 Light Rig. Interior Light set and Exterior Light Set. Environment Light Set and Layered Based Light set. Working with the Schematic View, Using Animation Layers and the Motion Mixer to Understanding Rigging and Working with Bones

UNIT IV RETRACING WITH MENTAL RAY 12

Retracing with 3D Software and Mental Ray, Retracing with Mental Ray - Reproducing water- Reproducing Glass- Reproducing Marble floor - Working with HDRI,

UNIT V ABOUT ILLUMINATION AND SHADERS 12

Working with global illumination. Final gather and mental ray shaders, Understanding indirect Illumination. Applying Caustics and Applying Mental Ray Shaders. Using Final Gather and Fine Tuning Mental Ray Shaders

Total: 60 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1.** Understand the light principles.
- CO 2.** Know the types of light and properties.
- CO 3.** Create light rig and position the light.
- CO 4.** Understand the raytracing, global illumination and final gathering.
- CO 5.** Know rendering using mentalray, vray and arnold.

TEXT BOOKS:

1. Kelly L. Murdock, “Kelly L. Murdock's Autodesk 3ds Max 2015 Complete Reference Guide”, Perfect Paperback , 2014.
2. Todd Palamar “Mastering Autodesk Maya 2016”, Autodesk Official Press, First Edition

REFERENCE BOOKS:

1. Jeremy Birn, "Digital Lighting and Rendering", New Riders, 2013.
2. Kelly L. Murdock, "Autodesk Maya Basics Guide 2015", 2014.

TEXT BOOKS:

1. Introducing ZBrush Paperback – May 5, 2008 by **Eric Keller**
2. Pixologic ZBrush 4R6: A Comprehensive Guide Paperback – February 21, 2014 by Prof. Sham Tickoo Purdue Univ.

REFERENCE BOOK:

1. ZBrush 4 Sculpting for Games by Manuel Scherer

Course objective: Based on the introduction from level 01, the students will be learning the advanced concepts that will give a better control on the look and feel of the game. They will be adding up more features that will be making the game more engaging.

UNIT I ADDING GRAPHICAL USER INTERFACE 6

Overview of GUI, Functions of GUI, Canvas, Render mode, Creating a GUI, Creating an HUD, Game navigation.

UNIT II LIGHTING IN UNITY 6

Direction lights, Point light, Spotlight, Area light, Reflection probe, Light probe group, Light mapping, Occlusion culling.

UNIT III PARTICLE SYSTEMS 6

Particle emitter, Particle Animator, Particle Renderer, Creating the campfire particle, Creating fire, Smoke, Adding audio to the fire, Lighting the fire.

UNIT IV AUDIO 6

Audio files, Tracker modules, Audio mixer, Audio listener, Audio source, Audio filters, Audio effects, Rever zones, Audio plugin SDK.

UNIT V BUILDING AND SHARING 6

Build options, Build settings, Player settings, Quality settings, Player Input settings, Building the game.

Total: 30 Hrs

Course Outcome:

At the end of this course, the Student will be able to

CO 1. Learn GUI design and navigation.

CO 2. Know the types of light and properties.

CO 3. Create light rig and position the light.

CO 4. Understand the raytracing, global illumination and final gathering.

CO 5. Know rendering using mentalray, vray and arnold.

TEXT BOOKS:

1. Getting Started with Unity 5 Book by Edward Lavieri.

2. Unity Game Development Essentials, by Will Goldstone.

REFERENCE BOOKS:

1. Getting Started with Unity 5.x 2D Game Development By Francesco Sapiro.

2. Creating Games with Unity and Maya By Adam Watkins.

Course objective: To learn the techniques and understand the various methods, develop skills and techniques to create special effects. And to know the interface used in creating visual effects.

UNIT I PAINT EFFECTS 6

Introduction to visor, Designing Paint Effects , Coloring paints, Designing Trees and green effects ,Designing Weather and seasons ,Effects on seasons, Designing Glass image, Designing Different glass reflection, Designing Glow Effects, Liquid Effects and reflection design

UNIT II PARTICLES AND FIELDS 6

Introduction to dynamics and explaining how it uses the rule of physics to simulate natural forces, overview of particles such as dots, streaks, spheres, blobby surfaces and other item, Animating particle by using different types of fields, using different types of emitters to create effects such as steam, rain, fire, snow, cloud, smoke and explosion. 2D and 3D grid particle. Animating the particle using goal, To make the particle move with the surface and parent them, setting the color for particle, Instancing the geometry to particles, Instancing strokes from paint effects, Understanding the difference between Hardware render and software render.

UNIT III SOFT BODIES AND RIGID BODIES 6

Understanding the behavior of soft body and rigid body, Rigid body Constraints of like nail, pin, hinge, barrier and spring. Painting the soft body weights tool , Change or turning off the constrain type, Convert rigid body animation to keys.

UNIT IV FLUID EFFECTS 6

Introduction to Fluid Effects, Coloring the fluids, Designing Clouds Background, Designing Fog Effects , Explosion Effects and Fire Effects with flames, Space Effects and designs, Designing Thick Smoke, Water effects with fluids, Fluid stimulation for special effects.

UNIT V SPECIAL EFFECTS 6

Designing Special Effects, Designing effects of Fur and shape, Designing Fur Effects, Designing Cloth & Clothes and effects, Fire effects, Lighting, Shatter, Curve flow, Surface flow, Basics of ndynamics and ncloth, Special effects rendering techniques.

Total: 30 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1. Understand the mattepainting.
- CO 2. Know the brush types and brush strokes.
- CO 3. Learn the live action compositing.
- CO 4. Understand multipass rendering and render format.
- CO 5. Learn about the multipass compositing.

TEXT BOOKS:

1. Doug Kelly, “Digital Compositing in Depth”, Carioles Publication, 2003.
2. Angie Taylor, “Creative After Effects 5.0”, Focal Press, 2002.

REFERENCES BOOKS:

1. Ron Brinkman, "The Art and Science of Digital Compositing: Techniques for Visual Effects, Animation and Motion Graphics", Morgan Kaufmann Publishers, Second Edition, 2008.
2. Steve Wright, "Digital Compositing for Film and Video", Focal Press, 2010.
3. Lee Lanier, "Professional Digital Compositing: Essential Tools and Techniques", Wiley Publishing Inc., 2010.

Course objective: This course is designed such that the Game Arts students will be able to play key role in the Level Design team. They will be able to contribute in creative ideas within the scope of the game, and game play, avoiding any repeated ideas, which is critical in making the game, a successful one.

UNIT I LEVEL DESIGN IDEAS 12

The basics of game design, storytelling level design, Plan and research your map, creating maps, know your outcome, coming up with ideas, designing the document, love your idea, refer existing level design,

UNIT II LAYOUT 12

Silhouette environment design, Top down layout, collecting photo references, become a method Level designer, less is more, Theme, Style, Block in and Prototype early, Playtest often.

UNIT III GAMEPLAY 12

Learn Scripting, Scale and Proportion, Illusion of freedom, Set the pace and Anticipation, Consistency, Study and Reference architecture, Make it imperfect, Level design originality, clichés, Foreshadowing, Previous locations, Believable world boundaries, Visual tension and atmosphere, Scripted events.

UNIT IV INTERACTIVE ENVIRONMENT 12

Interactive environments, Environment danger, Guide with light, Guiding the player with props, Linear vs Open-Ended, Player spawn locations, AI, Create environment relationships, Water and Waterfalls, Foliage, Graffiti and Posters.

UNIT V LIGHTS AND SHADOWS 12

Interior natural light, Exterior lights, Hard and soft shadows, Light parameters, Lightmapping, Color palette and cool vs warm, Attention and contrast, Details, Study real world.

Total: 60 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1. Understand the level design.
- CO 2. Know the game layout.
- CO 3. Learn the scale and proportions for gameplay.
- CO 4. Learn the interactive with background.
- CO 5. Learn about the lighting and lightmapping.

TEXT BOOKS:

1. Preproduction Blueprint: How to Plan Game Environments and Level Designs Paperback – November 9, 2016 by Alex Galuzin
2. Level Design for games: Creating compelling game experiences by Phil co.

REFERENCE BOOKS

2. Ultimate level design guide by Alex Galuzin

Course objective: AI is an integral part of the modern day gaming, and will get more advanced in the coming years. This course will cover various aspects of AI, and with the already acquired game development knowledge, students will be able to apply AI approach to their works.

UNIT I AI AND GAMES 12

What is AI, Model of Game AI, The complexity fallacy, The kind of AI in games, Speed and memory, The AI engine.

UNIT II MOVEMENT AND PATHFINDING 12

The basics of movement algorithms, Kinematic movement algorithms, Steering behaviors, Combining steering behaviors, Predicting physics, Jumping, Coordinated movement, Motor control, Movement in the third dimension, The pathfinding graph, Hierarchical pathfinding, Other ideas in pathfinding, Continuous time pathfinding, Movement planning.

UNIT III DECISION MAKING 12

Overview of decision making, Decision trees, State machines, Behavior trees, Fuzzy logic, Markov systems, Goal oriented behavior, Rule based systems, Blackboard architectures, Scripting, Action execution.

UNIT IV TACTICAL, STRATEGIC AI & LEARNING 12

Waypoint tactics, Tactical analyses, Tactical pathfinding, Coordinated action, Learning basics, Parameter modification, Action prediction, Decision learning, Decision tree learning, Reinforcement learning, Artificial neural networks.

UNIT V TOOLS, CONTENT CREATION & DESIGN GAME UI 12

Knowledge for pathfinding and waypoint tactics, Knowledge for movement, Knowledge for decision making, The toolchain, The design, Shooters, Driving, Realtime strategy, Sports, Turn-based strategy games.

Total: 60 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1. Understand the AI engine in games.
- CO 2. Learn the movement and pathfinding like steering behaviors.
- CO 3. Know the overview of decision making.
- CO 4. Learn the tactical analyses, tactical pathfinding, strategic.
- CO 5. Knowledge for pathfinding and waypoint tactics.

TEXT BOOKS:

1. Artificial intelligence in games by Ian Millington and John Funge.
2. Artificial Intelligence in Games Videogame Design and Programming by Prof. Pier Luca Lanzi.

REFERENCES BOOKS:

1. Biologically Inspired Artificial Intelligence for Computer Games by Darryl Charles.

Course objective: Programming is an integral part of the game development, and this course will give the students to gain knowledge in JAVA SCRIPTING. Students with or without programming knowledge will be able to use JAVA SCRIPTING in their game development at the end of this course.

UNIT I JAVA SCRIPT SYNTAX , VARIABLE & DATATYPES 6

Case sensitivity, White space, Comments, Semicolons, Line breaks, JavaScript statements, Data types in JavaScript, Working with numbers, Working with strings, Booleans, Null, Undefined, Objects, Arrays, Defining and using variables, Declaring variables, Variable types, Variable scope The Date object, Using the RegExp object, The syntax of regular expressions, References and garbage collection, Learning about type conversions, Number conversions, String conversions, Boolean conversions.

UNIT II OPERATORS AND EXPRESSIONS 6

Additive operators, Multiplicative operators, Bitwise operators, Equality operators, Relational operators, The in operator, The instanceof operator, Unary operators, Incrementing and decrementing, Converting to a number with the plus sign, Creating a negative number with the minus sign, Negating with bitwise not and logical not, Using the delete operator, Returning variable types with the typeof operator, Assignment operators, The comma operator.

UNIT III CONTROLLING FLOW WITH CONDITIONALS & LOOPS 6

If (and how), Syntax for if statements, The prompt() function in Internet Explorer, Compound conditions, Using else if and else statements, Working with ternary conditionals, Testing with switch, Looping with while, The while statement, The do-while statement, Using for loops, The for loop, Validating forms with conditionals.

UNIT IV WORKING WITH FUNCTIONS 6

What's in a function, Function parameters, Variable scoping revisited Return values, More on calling functions, Anonymous/unnamed functions (function literals), Closures, Methods, A look at dialog functions.

UNIT V OBJECTS IN JAVASCRIPT 6

Object-oriented development, Objects, Properties, Methods, Classes, Creating objects, Adding properties to objects, Adding methods to objects, Finding out more about arrays, The length property, Array methods, Taking advantage of built-in objects, Making URIs safe, Using the eval() method

Total: 30 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1. Understand the syntax, case, variables and datatypes.
- CO 2. Learn the operators and expressions.
- CO 3. Learn the conditional loop.
- CO 4. Learn function parameters.
- CO 5. Know the object-oriented programming.

TEXT BOOKS:

1. JavaScript Step by Step, Third Edition by Steve Suehring

REFERENCE BOOKS:

1. JavaScript A Beginner's Guide Third Edition by John Pollock

Course objective: This course will give the importance of the business aspects of the game developments. Students will be able to get a clear knowledge of various steps involved in positioning their games in the market place and monetize it.

UNIT I EXAMINING THE MOBILE APPS AS A BUSINESS 12

Creating the app, Brief mobile app marketing introduction, Brief mobile app monetization introduction, Setting reasonable goals for your app, On which platform should you release your app first, Basic business planning questions to ask yourself before beginning work on your app.

UNIT II STRATEGIES TO PROMOTE A MOBILE APP 12

App store search and ASO, Publicity and press coverage for your app, Website promotion, Cross promote and partner with other apps and websites, Pay for advertising, Email marketing and growing your email list, Speak at events, Create a youtube channel, Keep your app freemium, Google search for your app store, Establish a presence on any large platform, Become a great marketer, Participate in forums, Translate your app's title and description to other languages.

UNIT III HOW TO MONETIZE YOUR MOBILE APP 12

Mobile app should be free or paid, Making money with ads, Making money with affiliate products, Making money with in-app purchases, Making money by selling your own products, Making money by selling services, The whale monetization pattern, How to maximize your app's revenue.

UNIT IV ADDITIONAL TACTICS AND STRATEGIES 12

Comparing mobile app stores: Googleplay vs Apple app store vs Kindle vs Windows phone store vs Blackberry vs NOOK, General features to add to your app that will help it grow and make money, Crowdfunding for apps, Fundraising strategies, Dive into mobile app business models, Mobile app exit strategies.

UNIT V COMMON TYPES OF APPS AND STRATEGIES 12

Game apps, Social and photo apps, Dating apps, Case study of ASO for apps.

Total: 60 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1. Gain the knowledge of mobile apps used for marketing.
- CO 2. Learn different types of strategies to promote the product.
- CO 3. Learn the monetization of mobile apps
- CO 4. Gain the knowledge of tactics and strategies.
- CO 5. Learn about the importance of game apps and different types of apps.

TEXT BOOKS:

1. Mobile App Marketing And Monetization: by Alex Genadinik
2. Mobile App Marketing By Vindimear D Heart.

REFERENCES BOOKS:

1. The Business of Android Apps Development: Making and Marketing Apps That Succeed
By Mark Rollins

Course objective: This course will help the students to get advanced concepts in Scripting using C#. This will enable them to create various tools and controls that will be making them games more cutting edge as per today's needs.

UNIT I WORKING WITH C# IN GAME ENGINE 9

Tokens, Statements and expressions, Keywords, Whites Space, Code blocks, Classes, Variables, Variable names, Strong typing, Type casting numbers, Comments.

UNIT II THE BUILDING BLOCK OF CODE 9

Building up a game idea, Creating class, Directives, Functions, Order of operation, Scope, This, Turning ideas into code, Logic and operators, Loops, Scope, Warning vs errors.

UNIT III FUNDAMENTALS 9

Inheritance, Instancing, Static, Turning ideas into code, Jump statements, Operators and conditions, Arrays, Jump statements, Multidimensional arrays, Array list, Strings, Source version control.

UNIT IV INTERMEDIATE & ADVANCED 9

Class constructors, Arrays revisited, Enums, Switch, Structs, Class data, Namespaces, Functions again, Unity 3D execution order, Inheritance again, Type casting again, Working with vectors, Goto labels, More on arrays, Out parameter, Ref parameter, Type casting numbers, Types and operators, Operator overloading, Controlling inheritance, Functions overloading, Accessors, Base classes, Optional parameters, Delegate functions, Interface, Class construction revisited, Preprocessor directives, Exceptions, Enumerator, Generics, Events, Unity friendly classes, Destructor, Concurrency, Stacks and queues, callbacks, Leveling up

UNIT V EXTENDED 9

Readability optimization and idioms, Source control revisited, Debugging, Recursion, Reflection, Bitwise operators, Bitwise math, Attributes, Architectures and organization, Design patterns.

Total: 45 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1. Understand the basic C# programming.
- CO 2. Learn basic coding like logic and operators.
- CO 3. Learn statements, inheritance, arrays.
- CO 4. Understand the constructor, functions and destructor.
- CO 5. Learn bitwise operators, math and design pattern.

TEXT BOOKS:

1. Learning C# programming with unity 3D by Alex Okita

REFERENCE BOOKS:

1. JavaScript A Beginner's Guide Third Edition by John Pollock

Course objective: To make the students to prepare show reel for producing in industry and for interview purposes.

Students are expected to submit the projects on any one of the following

3D- Game- First Person Camera

OR

3D- Game- Third Person Camera

OR

2D- Game

UNIT I CONCEPT FOR THE GAME BG & CHARACTER MODELING 9

Students are expected to create concept for their Game. Character for the game should be designed along with the concept. They have to get the approval of the concerned faculty member's approval.

UNIT II STORY BOARDING 9

The Story line is briefed in the paper as drawing with the shorts and scenes.

UNIT III LEVEL DESIGN 9

Creating Game Planning, look and number of levels

UNIT IV CREATING THE GAME BACKGROUND 9

Creating a basic set and background design based on the story line.

UNIT V FINAL GAME AND PUBLISHING 9

Finally the character and the background and the animated sequence is combined together to achieve the final output.

Total: 45Hrs

Course Outcome:

At the end of this course, the Student will be able to

CO 1. Creating concepts for story and developing scripts

CO 2. Create 2d and 3d game objects.

CO 3. Understand the assets in unity.

CO 4. Developing the levels of design

CO5: Publishing games and getting final output

TEXT BOOKS:

1. Ranjit Singh, "The Art of Animation Production Management", MacMillan India, First Edition, 2013.
2. Williams, R, "The Animator's Survival Kit", Faber and Faber Ltd, First Edition, 2001.

REFERENCE BOOKS:

1. Kupeeberg, M, "A Guide to Computer Animation", Focal Press, First Edition, 2002.
2. Scott, J, "How to write for Animation", The Overlook Press, First Edition, 2002.

Course objective: This course explores the whole production process techniques. After taking this course the students will be able to attain skills in managing animation project. They will get a clear idea about the pre-production, production and post-production.

UNIT I PIPELINE 13

This unit deals with the concept of pipeline and different stages of graphics pipeline. This will start them on the process of working in an environment with other team members.

UNIT II INTERACTIONS 11

This unit deals with the interactions between various teams in a project, the significance of communication and an introduction into the approval methodologies.

UNIT III DEPENDANCIES 12

This unit deals with the dependencies between the teams in projects varying from simple 2D animations to complex film production in 3D. During this unit, they will know how the risks affect project success and the pitfalls that need to be avoided.

UNIT IV ARTIFACTS 12

This unit deals with the identification of various artifacts in the various production processes in the different types of animation. This will help them organize their work better in order to be an effective project team member.

UNIT V PROCESS 12

This unit deals with the overall process and explains how things should move and what the importance of each of the events is in the process. This also deals with the case study in any one of the production processes.

Total: 60 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1. Understand the pipeline of game production.
- CO 2. Understand the various teams in a project.
- CO 3. Learn the troubleshooting and risk factor.
- CO 4. Understand the various production process.
- CO 5. Learn about the importance of each of the events in the process

TEXT BOOKS:

1. Ranjit Singh, "The Art of Animation Production Management", MacMillan India, First Edition, 2013.
2. Williams, R, "The Animator's Survival Kit", Faber and Faber Ltd, First Edition, 2001.

REFERENCE BOOKS:

- a. Kupeeberg, M, "A Guide to Computer Animation", Focal Press, First Edition, 2002.
- b. Scott, J, "How to write for Animation", The Overlook Press, First Edition, 2002.

Syllabus

Discipline Specific Elective Courses

Course objective: Storyboard is a basic drawing and preproduction course aimed at students from various Visual Communication degrees including Motion Graphics and 2D Animation. This course teaches story-based concept skills and techniques as well as basic animatic production. Students can also apply skills learned in this class in other areas including 3D animation and interaction design, produce a series of cohesive storyboards from a script, recognize and define common storyboard terminology.

UNIT I THE STORYBOARD’S BEGINNINGS 6

Introduction to storyboarding, Preproduction process, Basic of Storyboards, screenplay and picturing, shots and storyboard panels., script, one line order, types of story board technique, Thumbnail story boards, and the planning processes of visual storytelling. Shot types, continuity, pacing, transitions and sequence, cinematic, storyboard

UNIT II BASIC OF THE STORYBOARD 6

Types of lay outs, concept and story developing, idea, script Foreground, Middle Ground and Background, Developing Drawing Skills, Shot, Angles, Building the Storyboard, study of Classic Film Examples.

UNIT III SHOT ANGLES 6

Shot types, angles cuts, posing, staging and camera move, Shot and every camera angle, tilt, pan close-up extreme close up, Extreme Close-Up Establishing Shot, Long Shot background, Medium Shot, low angle, high angle, different perspectives.

UNIT IV STORY BOARD FOR COMIC 6

Cartoon story boards, Color story board, black and white story board, fantasy story board, storyboard samples, graphic novel storyboard, staging figures, dialogue and captions, manga storyboards, comic-book-like story sketches.

UNIT V STORY BOARD FOR BOOKS 6

Introduction to book illustration story boards, front page story boards, picture book storyboard, scenes for chapters of the stories, story boards for poems, and advertising story board.

Total: 30 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1. Know about screenplay, storyboard panels.
- CO 2. Draw the basic characters and background
- CO 3. Understand the camera angles.
- CO 4. Paint the characters and background.
- CO 5. Create the storyboard layout

TEXT BOOKS:

1. Wendytumminello, “Exploring Storyboarding (Design Exploration Series)”, Delmar Cengage Learning, 1st Edition, 2004.

2. John Hart, "The Art of the Storyboard A Filmmaker's Introduction", Focal Press; 2 edition 2013.

REFERENCE BOOK:

1. Giuseppe Cristiano "Storyboard Artist: A Guide to Freelancing in Film, TV, and Advertising" Michael Wiese Productions, 2012.

Course objective: This course introduces the Students into the craft and art of Acting & Direction for Animation followed by Hollywood paradigms and cutting edge concepts so that the student can begin conceptualizing a full length Animated movie. The Students are trained to develop the skills of critical analysis story, skills needed to pitch a treatment and work collaboratively and most importantly the skills that awaken imagination, originality and inventiveness in the dramatic medium to helps them to direct the characterizations of animation

UNIT I ASPECTS OF ACTING AND DIRECTION 6

This Introductory unit cover the Aspects of Acting and Direction , Animation Principles, Becoming and Animator, Becoming and Actor, Becoming a Story teller and Becoming a creative practitioner over the process of animation Pre production.

UNIT II CREATIVE APPROACH 6

The students are put through a brief process of understanding the animation concepts and mainly the creative approaches to Animation followed by Simulation, Representation, Interpretation, working with the story, Understanding the Characterization, Emotional Memory, Stage appearance and Screen Presence.

UNIT III ACTING METHODOLOGIES 6

The variety of acting methodologies involves Mime Acting, Method Acting, The Chekhov Technique, Meisner Technique, Practical Aesthetics, Neurosthetic Acting, Shake Acting and Voice Characterization.

UNIT IV DIRECTORIAL TECHNIQUES FOR ANIMATION 6

Anatomy of an Animation Director, Directing the Story, The art of Professional Story-telling, Responsibilities of a story artist, Creative handling of the content, Implementing or feeding the concept onto the character over a brief characterization, Directing the voice actors, Detailing of the facial expressions and emotions.

UNIT V PARTICIPATION 6

The Students must Club themselves into a group of 4-5 and differentiate themselves with the story part as per characterizations for an animation concept and act themselves accordingly as to create an acting reference video which also acts as the directorial guide to the animation concept they developed.

Total: 30 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1. Understand the animation principle and acting for game.
- CO 2. Understand the concept and story for acting.
- CO 3. Learn the different types of acting.
- CO 4. Learn the different types of techniques in direction.
- CO 5. Students will be in group and participate in acting.

TEXT BOOKS:

1. Ed-Hooks,“Acting for Animators - A Complete Guide to Performance Animation” Published

by Routledge 2011.

2. Tony Bancroft, "Directing for Animation: Everything You Didn't Learn in Art School",
Published by Focal press - 2014.

REFERENCE BOOK:

1. Hayes, Chris Webster, "Acting and Performance for Animation by Derek" Published by Focal
press - 2013.

Course objective: This course is designed to help students to understand the importance of the character design, how to achieve the desired look and feel of the character, and various styles that are applicable in the game industry.

UNIT I THE BASICS 6

A frame of mind, Equipment, Materials and software, Building a reference library, Keeping a sketchbook, Basic drawing skill, Anatomy in a nutshell, Character design templates, The job, the client and the brief.

UNIT II THE PROCESS 6

Ideas, Thumbnails, Sketches, Using reference, Developing thumbnails into characters , Drawing:Paper vs photoshop, Breaking anatomy, Refining designs, 3D sketches, Turnarounds and Lineups, Presentation.

UNIT III START DESIGNING & APPEALING THE CHARACTER 6

Shape, Size, Variance, Basic shapes, Proportions, Curves and rhythm, Tilts, Faces and eyes, Hairstyles and clothing, Importance of anatomy, Cuteness factor, Looking the age.

UNIT IV PROJECTS 6

Case studies, Dystopian future: judge dredd, Manga: Post apocalyptic robot girl, Steampunk: ABC warrior mek-quake, Let's get mechaphysical: easy mecha design, Twisted history:ABC warrior deadlock, Tech-Fantasy: cyberdragon, Cartoon style: Little acorns and robots, Sci-fi: Manga Maiden, Fantasy: Goblins & orcs, Horror: Judge death

UNIT V PUTTING IT ALL TOGETHER, POSE, COLOR& STYLE 6

Pose and emote, The eyes have it, Go with the flow, Color personality, Rounding out the cast, Style.

Total: 30 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1. Draw basic shapes.
- CO 2. Understand the anatomy.
- CO 3. Understand the process of designing of character.
- CO 4. Create the model sheets such as front, side and perspective view.
- CO 5. Create pose, and different style.

TEXT BOOKS:

1. Character Design from the Ground Up: Make You... (Kindle Edition) by Kevin Crossley
2. Creating Characters with Personality: For Fil...(Paperback) by Tom Bancroft, Glen Keane

REFERENCE BOOKS:

1. Virtual Character Design for Games and Interactive Media By Robin James Stuart Sloan

1.Game Physics Engine Development (Second Edition) by Ian Millington.

2.Physics for Game Developers, 2nd Edition by David M Bourg, Bryan Bywalec

REFERENCE BOOKS:

1.Physics for Game Programmers by Grant Palmer

Objective: Student are expected to submit the projects on any one of the following

1. 2D- Animation
 - a. Dynamic web page.
 - b. Corporate presentation
 - c. Small Game

OR

1. 2D- SHORT FILM (minimum 2 minutes).

UNIT I CONCEPT CONTENT FOR THE SHORT FILM OR CONTENT FOR WEB PAGE. 6

Students are expected to create concept for their short film. Character for the short film should be designed along with the concept. They have to get the approval of the concerned faculty member's approval.

UNIT II SKETCHING AND STORY BOARD 6

The story line for the short film is sketched in the paper with shot and scene. Web page and corporate presentation outline are also sketched.

UNIT III PIPE LINE FOR ANIMATION 6

The Animation flow for the film is planned and executed on the system

UNIT IV WORKING ON CHARACTER CREATION 6

The character is created separated and animated. The background is created separately.

UNIT V COMPILING ALL THE WORK. 6

Compiling all the works together to give the Video out. Along with sound to give a final out.

Course Outcome:

Total: 30 Hrs

At the end of this course, the student will be able to

CO 1. Understand the importance of DEMO REEL

CO 2. Planning the demo reel based of 2D technical works.

CO 3. Preparing the ideas using storyboard or concept art.

CO 4. Edit the shot after shooting and adding 2D animation works

CO 5. Finalizing the shots with correction and make demo reel

TEXT BOOKS:

1. Pakhira Malay K, "Computer Graphics, Multimedia and Animation", Second Edition, PHI, 2010
2. Preston Blair, "Cartooning: Animation 1 with Preston Blair: Learn to animate cartoons step by step Walter T. Foster, 2003

REFERENCE BOOKS:

1. Von Glitschka, "Vector Basic Training: Vector Basic Training: A Systematic Creative Process for Building Precision Vector Artwork", New Riders, 2011
2. Sheila Graber, "Animation: A Handy Guide", Barron Publication, 2009.

CO 5. Learn GUI programming.

TEXT BOOKS:

1. Introduction to C++ Programming and Graphics by C. Pozrikidis

Course objective: Compositing is the combining of visual elements from separate sources into single images, often to create the illusion that all those elements are parts of the same scene. Digital compositing is an essential part of visual effects that are everywhere in the entertainment industry today.

UNIT I ROTOSCOPY 6

In this unit, Students explore the rotoscopy involves creating shapes which are used to isolate or mark elements in footage, such as characters, vehicles, buildings etc. This method of creating selections allows to perform specific operations like color correction, adding additional layers, dynamic effects etc. Rotoscopy is the first step in the process of digital compositing.

UNIT II KEYING 6

In this unit, Students explore keyer techniques which involve Luma key and Chroma key. This topic covers a wide knowledge about the RGB channels and its uses. It's a unique technique teaches the fastest and most accurate way to extract an object. This method is used to perform specific operations like color correction, adding multiple layers, foreground and background compositing, dynamic effects etc.

UNIT III TRACKING & STABILIZE 6

In this unit, student will explore the tracking and stabilizing the footage. This concepts teaches the how to track and stabilize the live footage in 2dimentions and techniques involved in this process. This method teaches the student how to track the camera in 2 dimensions and add the layers for compositing.

UNIT IV LIVE ACTION COMPOSITING 6

In this unit, Students explore live action compositing techniques. It covers how to composite various different layers into single image. In this session, students will learn at three general areas where CGI elements are composited. First up is straightforward CGI compositing where a CGI object has been created and needs to be composited into the scene. Second, we will take a look at set extension, a rapidly expanding technique in filmmaking. Thirds, we will look at the match move, where separate programs are used to analyze the live action and provide terrain and camera data for the CGI programs

UNIT V RENDERING AND OUTPUT FORMATS 6

This is the stage where we teach about the bit depth of colors and various output formats with aspect ratio. In this session we teach how to put render for broad casting and filming (size differs).

Total: 30 Hhrs

Course Outcome:

- CO:1 Understand on User interface of the VFX software
- CO:2 Understand on Rotoscopy Techniques
- CO:3 Student can learn the different types of camera tracking.
- CO:4 Student will understand the fundamentals of camera techniques and compositions.
- CO:5 Get Knowledge on Making Live action Footage and Render it

TEXT BOOKS:

1. Ron Ganbar, “Nuke 101: Professional Compositing and Visual Effects”, Peachpit Press; Second Edition, 2014.
2. Steve Wright, “Compositing Visual Effects”, Focal Press; Second Edition, 2011

REFERENCE BOOKS:

1. Steve Wright “Digital Compositing for Film and Video”, Focal Press; Third Edition,2010
2. Ron Brinkmann, “The Art and Science of Digital Compositing”, Morgan Kaufmann Publishers In; Second Revised Edition, 2008

Course objective: Digital Intermediate (DI) is one of today's most exciting and fastest growing technologies in digital post production of motion picture films.

UNIT I TELECINE COLORING WORKS 6

In this unit we teach about Cathode-ray tube (CRT) system, an electron beam is projected at a phosphor-coated envelope, producing a spot of light the size of a single pixel.

UNIT II PRIMARY AND SECONDARY COLOR CORRECTIONS 6

In this unit, Students explore how the Primary and Secondary color correction affects the whole image intensities of RGB and highlights of the entire frame, with these we teach the advanced techniques of color correction and well established digital painting techniques in the era of digital cinematography.

UNIT III MASK, MATTE, TRACK 6

In this unit, student will learn the evolution of digital color correction tools with advanced technique of using point shapes to isolate color adjustment in the specific area of the image. We also teach color keying to isolate the colors in the image. We teach special training for automation on tracking the image in term of color to save the time in the production process.

UNIT IV DIGITAL INTERMEDIATE PROCESS 6

In this unit, student will explore the color of Bit Depth with Look Up Table (LUT). We teach about the Color grading is the process of altering and enhancing the color of a motion picture, video image, or still images either electronically, photo-chemically or digitally.

UNIT V PRESERVING THE QUALITY OF THE IMAGE 6

After learning this program, students will gain knowledge about the DI importance and the scope of work.

Total: 30 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1. Learn the photoshop tools for mattepainting the light principles.
- CO 2. Know the brush types and brush strokes.
- CO 3. Understand the color theory.
- CO 4. Understand the types of perspective.
- CO 5. Learn about the composition

TEXT BOOK:

1. Steve Hullfish, "the Art and Technique of Digital Color Correction", 1st Edition

REFERENCE BOOKS:

1. Jack James, "Digital Intermediates for Film and Video", Kindle Edition
2. Alexis Van Hurkman, "Creative Grading Techniques for Film and Video", Kindle Edition.

TEXT BOOKS:

1. Cooper, pat, and ken dancyger, "writing the short film",USA: focal press", second edition, 2000.
2. Phillips, William "Writing short scripts".USA: Syracuse university press. Second edition, 1999.

REFERENCE BOOK:

1. Zettle, Herbert, "TelevisionProduction Handbook", USA: words worth, Tenth Edition, 2010.

Course objective: Programming is an integral part of the game development, and this course will give the students to gain knowledge in C#. Students with or without programming knowledge will be able to use C# in their game development at end of this course.

UNIT I INTRODUCTION TO PROGRAMMING 6

C# program, C# language and .NET platform, C# in linux, Android and IOS. Primitive types and variable, Operators and Expressions, Conditional statements, Loops, do, While.

UNIT II CONSOLE PROGRAM 6

Perimeter and area of a circle, Product calculation, Date and time, Arguments on the command line.

UNIT III ARRAYS AND STRINGS 6

The class string, Palindrome, Two arrays of the type int, Array of strings, Yatzy, Craps.

UNIT IV CLASSES AND METHODS 6

Coins, Dice, Methods names, Function overriding, Methods return values, Properties, A point, Parameters, Methods parameters.

UNIT V OBJECT ORIENTED PROGRAMING PRINCIPLES 6

Fundamentals principles of OOP, Inheritance, Abstraction, Encapsulation, Polymorphism, Cohesion and Coupling, Object oriented modeling, UML notation, Design Patterns.

Total: 30 Hrs

Course Outcome:

At the end of this course, the Student will be able to

- CO 1. Understand the basic C# programming.
- CO 2. Learn basic coding like logic and operators.
- CO 3. Learn statements, inheritance, arrays.
- CO 4. Understand the constructor, functions and destructor.
- CO 5. Learn bitwise operators, math and design pattern.

TEXT BOOKS:

1. Fundamentals-of-Computer-Programming-with-C by Svetlin Nakov & Co., 2013

REFERENCE BOOKS:

1. Introduction to programming and the C# language by Poul Klausen

Syllabus
Ability Enhancement Compulsory Courses

Course Objective:

- To train the students in the use of the english language in varied literary and non literary context
- To teach them soft skills and strength their foundation in grammar and composition
- To elevate their comprehension skills

UNIT I	PROSE I 1. Spoon Feeding - W. R. Inge 2. Reading for Pleasure - L. A. G. Strong 3. The Challenge of our Time - E. M. Forster	12
UNIT II	PROSE II 4. Human Values in Education - V. K. Gokak 5. Human Rights - Sivagami Paramasivam	12
UNIT III	SHORT STORIES 1. Comrades - Nanine Gordimer 2. Games at Twilight - Anita Desai 3. The Gateman's Gift - R.K. Narayan	12
UNIT IV	PRIMARY COMPOSITION EXERCISES 1. Letter Writing 2. Comprehension	12
UNIT V	ADVANCED COMPOSITION EXERCISES 3. Precis-Writing 4. Resume Writing 5. Report Writing	12

Total: 60 Hrs**Outcome:**

- Train the students in the use of the english language in varied literary and non literary context
- Develop them soft skills and strength their foundation in grammar and composition
- Understand their comprehension skills
- Gain knowledge in writing skills

TEXT BOOKS:

1. Subramanian, S. Dr. Words of Wisdom. An Anthology of Modern Prose. Anu Chitra Pub., Chennai. 2003. P.
2. Subramanian, A, E. Gifts to Posterity. An Anthology of Modern Short Stories. Anu Chitra

Pub., Chennai. 2003. P

Course objective:

- To train the students in the use of the english language in varied literary and non literary context
- To teach them soft skills and strength their foundation in grammar and composition
- To elevate their comprehension skills

UNIT I	PROSE I	12
	1. The Complete Man - Prince Philip	
	2. Try Prayer Power - Norman Vincent Peale	
	3. On Not Answering The Telephone - W. Plomer	
UNIT II	PROSE II	12
	4. Science, humanities and religion - S. Radhakrishnan	
	5. The Reason - E. V. Lucas	
UNIT III	SHORT STORIES	12
	1. The Ant and the Grasshopper - W. Somerset Maugham	
	2. How much land does a man need - Leo Tolstoy	
	3. The Dying Detective - Sir Arthur Conan Doyle	
UNIT IV	PRIMARY COMPOSITION EXERCISES	12
	1. Business Letters	
	2. Hints Development	
UNIT V	ADVANCED COMPOSITION EXERCISES	12
	3. Paraphrasing	
	4. Writing Abstract	
	5. Dialogue Writing	

Total: 60 Hrs**Outcome:**

- Train students in the use of English language in varied literary and non-literary context -
- Develop soft skills and strength their foundation in grammar and composition
- Practice to their comprehension skills.
- Develop skills to write

TEXT BOOKS:

1. Subramanian, S. Dr. Words of Wisdom. An Anthology of Modern Prose. Anu Chitra Pub., Chennai. 2003. P.
2. Subramanian, A, E. Gifts to Posterity. An Anthology of Modern Short Stories. Anu Chitra Pub., Chennai. 2003.

Course objective: To train the students in 3d Animation using advanced software's and plug – ins. And to train the students to meet the needs of the industry.

UNIT I INTRODUCTION TO ANIMATION 6

History of animation ,Animation principle ,Introduction of animation ,Line art sketching, Shading, Human anatomy, character model sheet, Breakdown character, Perspective drawings ,Clay modeling ,Cell animation ,color theory ,Painting ,Story board ,Concept art sketching , Storytelling , Acting and Direction, Cinematography, Character design and development , Stop motion animation.

UNIT II 2D GRAPHIC AND ANIMATION 6

Advance graphic design ,web designing , Boucher ,Logo designing .visiting card design ,T-shirt design ,Manipulation ,Digital drawing ,Concept art ,Bouncing ball ,Walk cycle ,Run cycle , Tweening ,Animation banner ,Basic actionscript,2d animation show reel.

UNIT III 3D ANIMATION 6

Nurbs Modeling ,Polygon Modeling ,Animation ,Rigging, Texturing ,Lightning ,rendering, Lightning Animation ,Dynamics ,Camera ,Camera Animation ,Text Animation ,Mel and Python basic script ,Sculpting ,UV mapping,3D Animation short film.3d show reel

UNIT IV EDITING AND ACTING 6

History of editing ,Linear and non-Linear ,Montage ,Clapboard ,Crosscut ,Editing techniques, Parallel cut, Offline editing, Online editing, EDL Out, Effects , Title design .Sound editing ,Audio video synchronization ,Render output, acting and facial exposition

UNIT V COMPOSITING 6

Rotoscopy , Retouching, Chroma keying, Crowd replace, Camera mapping, Fluid dynamics, Sky replacement,2D tracking, 3D tracking, Telecine , Color sampling, Color grade, Matching, Lighting, Keying, Shadow extraction, Hard body physics, Basic of Camera animation, Matte tracking, Body tracking, Face tracking, Ray tracing, Basic motion capture, Green matte painting, Basic of motion capturing.

Total: 30 Hrs

Course Outcome:

- Co1: Understanding on time frames
- Co2: Understanding on basic Animation
- Co3: Get Knowledge on 3D Animation Concepts
- CO4: Understand on Editind And acting
- CO5: Get knowledge on Composition

TEXT BOOKS:

1. Kupeeberg, M, "A Guide to Computer Animation", Focal Press, First Edition, 2002.
2. Williams, R, "The Animator's Survival Kit", Faber and Faber Ltd, First Edition, 2001.

REFERENCE BOOKS:

1. Scott, J, "How to write for Animation", The Overlook Press, First Edition, 2002.
2. Ranjit Singh, "The Art of Animation Production Management", MacMillan India, First Edition, 2013.

Course Objective: This course provides knowledge on various environmental resources and issues facing the world. It deals with natural resources, eco system, biodiversity and environmental pollution.

UNIT I Introduction 12

The multidisciplinary nature of Environment of studies – Definition - Scope and Importance - Need for Public Awareness.

UNIT II Natural Resources 12

Natural resources and associated problem - Renewable and Non- Renewable resources:-Forest Resources-Mineral Resources-Food Resources, Energy Resources. Land Resources; Role of an individual in conservation of natural resources- Equitable use of resources of sustainable lifestyles.

UNIT III ECO System 12

Concepts of an Ecosystem - Structure and Functions of an Ecosystem - Procedures, Consumers and Decomposers - Energy flow in the ecosystem - Food chains, Food webs and ecological pyramids - Introduction, types, Characteristics features - Structures and functions of the following ecosystem :Forest ecosystem, Grass land ecosystem, Desert ecosystem, Aquatic ecosystem.

UNIT IV Biodiversity and Its Conservation 12

Introduction - Definition, genetic, species and ecosystem diversity - Bio-geographical classification of India - Value of Bio-diversity - Bio-diversity at global, National and Local levels - India s a mega-diversity nation - Hot-Spots of diversity - Threats to diversity: Habitats loss, poaching of Wild life, man wild life conflicts - Endangered and Endemic species of India In-Situ conservation of Bio-diversity.

UNIT V Environmental Pollution and Human Rights 12

Definition - Causes, effects and control measures of : Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear pollution - Soil pollution management: Causes, effects and control measures of urban and industrial wastes - Role of an individual in prevention of pollution - Pollution – Case studies -Disaster Management – Flood, earthquakes, cyclone of landslides Environment and human health - Human rights - Value education - HIV/AIDS - Women and child welfare - Role of information technology in Environment and Human health - Case study

Total: 60 Hrs

COURSE OUTCOME:

CO:1 Understand key concepts from environment studies, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions.

CO:2 To understand appreciate concepts and methods from renewable and nonrenewable sources and their application in environmental problem solving.

CO:3 Students can acquire knowledge on ecosystem, Food Chains, and historical context of environmental issues and the links between human and natural systems.

CO:4 Students understand critically on Bio-diversity, threats for Bio-diversity and their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world.

CO5: To appreciate the importance of environment by assessing its impact on the human world.

TEXT BOOK:

1. Environmental studies by Dr. Shradha sinha, Dr.Manisha shukula, Dr. Ranjana Shukla

REFERENCE BOOK:

1. Environmental studies by Dr. N. Arumugam, Prof.V. Kumaresan, Thangamani & Shyamala Thangamani.

18BCC251

ETHICS AND VALUES

3 0 0 2

Course objective: To help students understand significance of ethics and values in business. To understand ethical issues and not to fall prey to unethical practices and to be socially responsible.

UNIT I INTRODUCTION 6

Why Value Education – Ethical Reflections – What is Ethics? Swami Vivekananda

UNIT II APPROACH TO LIFE 6

Approach to Life - Happiness as Goal - Historical Perspective – Life in the Past and Present

UNIT III KINDS OF VALUES 6

Kinds of Values S.Ignacimuthu S.J – Living Excellence Anthony Robbins – Concern for Others – Student’s Definition why Concern.

UNIT IV GOALS AND HUMAN RIGHTS 6

Use Goals to help you grow David J.Schwartz – essential Characteristics of Human Rights. - H. Victor Conde

UNIT V INFLUENCE OF SCIENCE AND TECHNOLOGY IN HUMAN’S SOCIAL LIFE 6

Social Relevance of Science and Technology – Economic Awareness – Economic Features – Status of Women – Mass Media and Values.

Total: 30 Hrs

Course Outcome:

At the end of this course the students will be able to,

CO1: Develop utilitarian value of ethics in business.

CO2: Choose values for perceptible benefit.

CO3: Develop tendency not to fall victims to unethical practices

CO4: Combine values to become socially responsible

CO5: Take part in disseminating ethical values to others.

TEXT BOOK:

1. Touchstone: Synergy of Values – University of Madras.

REFERENCE BOOK:

1. In harmony- Value Education at College Level- Dept. of Ethics and Religious Studies
Loyolla College, Madras.

Syllabus
Generic Elective Courses

Course Objective: On successful completion of the course the students should have:

1. Learnt to analyze the business model of firm, and determine the role that the internet(and related technologies) can play to support or even enable this model
2. Understand the key issues involved in managing electronic commerce initiatives
3. Utilize the internet to collect information to conduct research.

UNIT I TELECOMMUNICATION NETWORKS 6

Introduction- LAN-WAN- internet- what is electronic commerce- brief history of electronic commerce- advantages and limitations of electronic commerce- types of electronic commerce- integrating electronic commerce key questions for management.

UNIT II THE INTERNET AND THE WORLD WIDE WEB 6

The internet today- history of the web- unique benefits of the internet- internet architecture – world wide web concepts and technology- creating web pages- launching a business on the internet.

UNIT III ELECTRONIC PAYMENT SYSTEMS 6

Overview of the electronic payment technology- requirements for internet based payments – electronic payment medias- electronic commerce and banking.

UNIT IV E-SECURITY 6

Security in the cyberspace- designing for security- virus- security protection and recovery encryption- the basin algorithm system- authentication and trust- key management internet security protocols and standard- other encryption issues.

UNIT V WEB BASED BUSINESS 6

Business-to-business electronic commerce- intranets and extranets- intranets and supply chain management- legal and ethical issues- case studies.

Total: 30 Hrs

Course Outcomes:

- CO 1:** Understand the concept of E-Commerce and Describe the opportunities and challenges offered by E-Commerce
- CO 2:** Able to handle electronic payment technology and requirements for internet-based payments.
- CO 3:** Understand the categories of E-Commerce and understand the different applications of ECommerce
- CO 4:** To understand and identify security issues of E-Commerce CO-V Understand the concept of WEB Based Business Understand the M-Commerce applications
- CO5:**Undertand the e-Business and its ethics

TEXT BOOK:

1. Elias.m. Awad, "Electronic Commerce" prentice- hall of India Pvt Ltd, 2002.

REFERENCE BOOK:

1. Ravi kalakota, andrew b. Whinston, "Electronic Commerce – a managers guid", addison-wesley, 2000.

Course objective:

- To make the student understands the overall view of internet.
- To inculcate the students about the various facilities available in internet.
- To gain practical knowledge about internet.

UNIT I INTRODUCTION 6

Internet and its history, defining and describing the Internet, Brief history, discussing the future of the Internet, Internet Resources. Describe the important features of the Web and Web browser software, Evaluate e-mail software and Web-based e-mail services

UNIT II EMAIL 6

Email , Parts of email ,Email software , Web based email , Email address , List servers , Newsgroups ,Newsgroups names , Newsgroups readers ,Chat rooms , Conferencing .

UNIT III INTERNET RESOURCES 6

Internet Resources, Games, File transfer protocol, Telnet, World Wide Web, Behavior on the Internet , Accessing the Internet , Types of access , Online services , Internet services providers , How and where to look for the service Browsing the Web , Browsing the Web.

UNIT IV FTP 6

Use FTP and other services to transfer and store data, Demonstrate the use of real-time chat and briefly describe the history of the wireless Internet. Use mailing lists, newsgroups, and newsfeeds, Create HTML documents and enhance them with browser extensions

UNIT V APPLICATIONS 6

Applications of Internet- education, business, government, Communication , Job searches, Health and medicine, Travel, Entertainment, Shopping, Stock market updates, Research.

Total: 30 Hrs**Course Outcome:**

At the end of this course the students will be able to,

CO1: Attain knowledge about history of Internet

CO2: Understand the parts of email

CO3: Gain knowledge about internet resources

CO4: Able to handle FTP

CO5: Understand the internet various applications

TEXT BOOKS:

1. Rohit Khurana , “COMPUTER FUNDAMENTALS and INTERNET BASICS”, Aph Publishing Corporation,2010
2. Margaret Levine young,douglas Muder ,David C.Kay,Alison Barrows and Kathy warfel, “Internet” : The Complete Refernce, 2nd Edition 1999.
3. Jasson Whittaker, “The Internet: The Basics”, Routledge, 2002.

REFERENCE BOOK:

1. Schneider and Evans,"New Perspectives on the Internet", Comprehensive, Sixth Edition, 2007.

Objective:

- To know the common applications available for office work.
- To learn how to work in MS-OFFICE.
- To learn how to work in MS-EXCEL and POWERPOINT.

UNIT I MSWORD 6

Text Manipulations- font size, style, color. Alignment- left, right and justify, paragraph alignment, Usage of Numbering, Bullets, Footer and Headers, Usage of Spell check, and Find & Replace, Text Formatting, Picture insertion and alignment.

UNIT II MSWORD 6

Insertion – Table, chart, clip art, shapes, borders. Creation of documents, saving of documents, using templates, Creation templates, Mail Merge Concepts, Copying Text & Pictures from Excel.

UNIT III MS – EXCEL 6

Creating of Excel sheet, Cell Editing, Usage of Formulae and Built-in Functions, File Manipulations, Data Sorting (both number and alphabets), Worksheet Preparation, Drawing Graphs, Usage of Auto Formatting.

UNIT IV POWER POINT 6

Start power point , Create blank presentation , Selecting slide layout , Insert new slide , Editing presentation , Designing and formatting presentation , Change font, font color, size, style of text , Bullet and numbering, Slide design, layout, change background , preparing slide show presentation.

UNIT V POWER POINT 6

Inserting Clip arts and Pictures, Frame movements of the above, Insertion of new slides. Preparation of Organization Charts, Presentation using Wizards, Usage of design templates, working with tables, graphics and animation, working with graphs and organization charts.

Total: 30 Hrs**Course Outcome:**

At the end of this course the students will be able to,

CO1: Attain knowledge in alignment

CO2: Understand the concept of mail merge

CO3: Gain knowledge in data sorting

CO4: Able to handle power point

CO5: Gain skills to do presentation

TEXT BOOK:

- 1) Joyce Cox, Joan Lambert and Curtis Fryc, “Step by Step Microsoft Office Professional 2010”, Microsoft press,2011 edition.

Course objective:

- To make the student understand the special concepts in MS EXCEL.
- To practice the students how to work in list, data forms and records.
- To understand the concepts of filtering data.

UNIT I ADVANCED EXCEL FORMULAS 6

Uses of Advance Excel Formulas -VLOOKUP, HLOOKUP, SUMIF, SUMIFS, SUMPRODUCT, DSUM, COUNTIF, COUNTIFS, IF, IFERROR, ISERROR, ISNA, ISNUMBER, ISNONTEXT, OR, AND, SEARCH, INDEX, MATCH etc

UNIT II IF CONDITIONS 6

Various Methods and Uses of IF Conditions , When should use the "IF" Conditions? , Creation of Multiple IF Conditions in One Cell , Use the IF Conditions with the Other Advance Functions , How to use nested IF statements in Excel with AND, OR Functions.
Sorting, Data Forms, Adding Data Using the Data Form, Finding Records Using Criteria

UNIT III FILTERING AND SORTING 6

Filtering Data, AutoFilter, Totals and Subtotals Total, Row, Various Methods of Filter and Advance Filter options, Creating and Updating Subtotals, Various Method of Sorting Data, Creating, Formatting and Modifying Chart.

UNIT IV DATA VALIDATION AND GOAL SEEK 6

Uses of Goal Seek and Scenarios Manager , Data Validation, Creating drop down lists ,using different data sources , Linking Workbooks and Uses of Edit Link options ,Excel Options, Customizing the Quick Access Tool Bar , Managing Windows, Multiple Windows , Splitting Windows.

UNIT V PIVOT TABLES 6

Various Methods and Options of Pivot Table, Using the Pivot Table Wizard, Changing the Pivot Table Layout, Subtotal and Grand total Options, Formatting, and Grouping items
Inserting calculated fields, Pivot Table Options, Display and hide data in fields
Select, Move & Clear Pivot data, Creating and Modifying a PivotChart

Total: 30 Hrs**Course Outcome:**

At the end of this course the students will be able to,

CO1: Eable to use excel formulas**CO2:** Understand various methods of IF conditions**CO3:** Attain knowledge in filtering and sorting**CO4:** Understand data validation

CO5: Understand the techniques of Pivot

TEXT BOOK:

1. Jordan Goldmeyer, “Advanced Excel Essentials” , APress, 2015 edition.

Course objective: To understand its constituents, forms and types, purpose of tourism and travel motivators, tourism infrastructure. Types and functions of travel agent and tour operators, tourism organizations, international and national. Tourism regulation and impacts of tourism, economics, socio cultural, environmental and political impacts.

UNIT I INTRODUCTION TO TRAVEL AND TOURISM 10

Tourism- meaning and definition, Significance of tourism, Tourism Industry-constituents, five 'A' of tourism, forms and types, purpose of tourism and travel motivators Definition-Accommodation, food and beverage, Attractions, Telecommunications, Essential services, Transport –air-road-rail- water, air transport in India, Security of aircraft and passengers, International Air Travel Classes, Transport as a attraction

UNIT II THE TRAVEL AGENTS, TOUR OPERATORS AND TOURIST ORGANIZATIONS 10

The Travel Agent, Travel Agencies-Types-Functions-source of income, setting -up a Travel Agency. The Tour operator-Types, Package Tours-Types Guides and Escorts Tourist Organization-Need for Tourism Organizations, International Organization, Government Organizations in India, Private Organizations, Non-Governmental Organizations

UNIT III TOURISM-REGULATIONS AND IMPACT OF TOURISM 10

Passport, VISA, Health Regulations for International Travel, Special Permits for Restricted Areas Customs Regulations, Emigrations and Immigrations, Taxes Paid by Travellers, Travel Insurances.

Economic Impacts, the Multiplier Effect, Environmental Impact, Socio-cultural Impact, Demonstration Effect, Political Impact of tourism.

Total: 30 Hrs

Course Outcome:

At the end of this course the students will be able to,

CO1: Attain knowledge about tourism industry

CO2: Understand about types of guides

CO3: Gain knowledge about tourism regulations

REFERENCE BOOKS:

1. Tourism operations and management-Oxford higher education-sunetra roday, archana biwal, vandana joshi
2. Tourism management - steven page - el sevier

Syllabus

Skill Enhancement Elective Courses

Course Objective: To Make Aware About the Importance of Personality and Development in The Business World. To Make the Students Follow the Good Personality and Create a Good Relationship with Others.

UNIT I PERSONALITY DEVELOPMENT - INTRODUCTION 6

The Concept Personality - Dimensions of Personality - Term Personality Development - Significance. The Concept of Success and Failure What Is Success? - Hurdles in Achieving Success - Overcoming Hurdles - Factors Responsible for Success – What Is Failure - Causes of Failure - Do's and Don'ts Regarding Success and Failure.

UNIT II ATTITUDES AND VALUES 6

Attitude - Concept - Significance - Factors Affecting Attitudes - Positive Attitude - Advantages - Negative Attitude - Disadvantages - Ways to Develop Positive Attitude – Difference between Personalities Having Positive and Negative Attitude.

UNIT III MOTIVATION 6

Concept of Motivation - Significance - Internal and External Motives - Importance of Self-Motivation- Factors Leading to Demotivation -Theories to Motivation

UNIT IV SELF ESTEEM AND SMART 6

Term Self-Esteem - Symptoms - Advantages - Do's and Don'ts to Develop Positive Self-Esteem –Low Self-Esteem - Symptoms - Personality Having Low Self Esteem - Positive and Negative Self- Esteem. Interpersonal Relationships - Teaming - Developing Positive Personality - Analysis of Strengths and Weaknesses. Concept of Goal-Setting - Importance of Goals - Dream Vs Goal - Why Goal-Setting Fails? – Smart (Specific, Measurable, Achievable, Realistic, Time-Bound) Goals
- Art of Prioritization - Do's and Don'ts About Goals.

UNIT V BODY LANGUAGE, STRESS MANAGEMENT & TIME MANAGEMENT 6

Body Language - Assertiveness - Problem-Solving - Conflict and Stress Management - Decision-Making Skills - Positive and Creative Thinking - Leadership and Qualities of a Successful Leader - Character-Building - Team-Work - Lateral Thinking - Time Management - Work Ethics – Management of Change - Good Manners and Etiquettes (Concept, Significance and Skills to Achieve Should Be Studied.)

Topics Prescribed for Workshop/Skill Lab: 12

- Group Discussion
- Presentation Skill
- Problem-Solving
- Decision-Making
- Creativity
- Leadership

- Time Management
- Body Language

Course Outcomes:

- CO 1: To provide orientation about personality development
- CO 2: To understand the importance of Values and Attitudes for their self-development
- CO 3: To give them Motivation and to create knowledge about motivation theories
- CO 4: To Enable them to become SMART and Self esteemed CO –V To create awareness about body language and stress management

Total: 30 Hr

TEXT BOOKS:

1. Organizational Behavior - S. P. Robbins - Prentice-Hall of India Pvt. Ltd., New Delhi-15th edition,2013
2. Communicate to Win - Richard Denny - Kogan Page India Private Limited, New Delhi-2009
3. Essentials of Business Communication - Rajendra Pal and J. S. Korlhalli - Sultan Chand & Sons, New Delhi,1st edition,2012

REFERENCE BOOKS:

1. Business Communication - K. K. Sinha - Galgotia Publishing Company, New Delhi.-4th edition,2012
2. Media And Communication Management - C. S. Rayudu - Himalaya Publishing House,Bombay.2011
3. Business Communication - Dr. S.V. Kadvekar, Prin. Dr. C. N. Rawal And Prof. Ravindra Kothavade - Diamond Publications, Pune.2009
4. You Can Win - Shiv Khera - Macmillan India Limited.2012
5. Group Discussion And Public Speaking - K. Sankaran And Mahendra Kumar - M.I. Publications, Agra .2000
6. Basic Managerial Skills For All - Prentice-Hall Of India Pvt. Ltd., New Delhi-2011
7. E.H.mcgrath, Habits - Stephen Covey-simon&schusker publisher-2007 edition.
8. Management Thoughts - Pramod Batra-HPB publisher-1st edition-2006
9. Produced By Prof. Rooshikumar Pandya - Creative Communication And Management Center, Bombay-R&E publisher kindle edition-2012.
10. Assertive Training: Four Cassettes-hannah Richards-2012
11. Self Hypnosis For Goal Achievement: Four Cassettes-kindle edition-ryan cooper-2012

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PERSONALITY DEVELOPMENT – II

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UNIT I

SOFT SKILLS I

06

Basic Etiquette – Email etiquette – Business etiquette – Telephone etiquette – Meeting etiquette – Adjustment of Role & Leadership – Team Management & Development

UNIT II

QUANTITATIVE APTITUDE I

06

Percentage – Profit Loss -Discount – Ratio Proportion – Time & Work – Time, Speed & Distancel. Problems relating to ages- Permutation & Combination-Probability

UNIT III

QUANTITATIVE APTITUDE II

06

Mensuration Clocks and Calendars- Boats-Simple Interest –Compound Interest- Fractions and Decimals – Square roots – Functions.

UNIT IV

ANALYTICAL PROBLEMS

06

Introduction – Linear Sequencing – Seating Arrangements – Distribution/Double Line Up – Selection – Ordering and Sequencing – Binary Logic – Venn Diagrams –Directions.

UNIT V

LOGICAL PROBLEMS

06

Introduction to Logical problems – Cause and Effect – Course of Action – Statement and Assumption – Letter and Symbol series – Analogies.

TOTAL: 30Hrs

Course Outcome:

At the end of this course, the student will be able to:

- Develop the confidence & skills to interact with the business environment and at networking events & client functions in a manner that enhances the Company Brand.
- Engage with clients & colleagues in a polished and professional manner, ensuring positive first & last impressions.
- Recognize a variety of leadership theories.
- Communicate effectively in a range of group sizes and across multiple media types.
- To use the techniques, skills, and modern engineering tools necessary for engineering practice.

REFERENCE BOOKS

1. Personality Development --Dr V M Selvaraj Bhavani Publications
2. Quantitative Aptitude – R. S Aggarwal
3. Logical and Analytical Reasoning (English) 30th Edition – A.K Gupta

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PERSONALITY DEVELOPMENT – III

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UNIT I VERBAL APPTITUDE I**06**

Phonetics/Neutral Accent/Pronunciation – Speech Mechanism/Mouth & Face Exercise – Vowels & Consonants – Sounds – Syllable and Syllable Stress/ Word Stress – Sentence Stress & Intonation – Articulation Exercise – Rate of Speech / Flow of Speech / Idiomatic Phrases.

UNIT II VERBAL APTITUDE II**06**

Singular/plural-present tense/past tense—genders - Prepositions-conjunctions-Choice of words—simple sentences—compound sentences-summarisingphrases—Synonyms—Antonyms—Analogies—Similar Words

UNIT III SOFT SKILLS IV**06**

Attitude—Meaning-Features of attitude-Formation-Personality Factors-Types of attitude-change in attitude-Developing Positive attitude.

UNIT IV TIME MANAGEMENT**06**

Definition –Meaning-Importance, Value of time as an important resource- comparison of Time and Money-Circle of influence and circle of control—Definition of URGENT and IMPORTANT—Time Wasters and how to reduce— Procrastination—meaning and impact- 4 Quadrants.

UNIT V TEAM BUILDING**06**

Meaning—Aspects of team building—Process of team building—Types of Teams-Team ethics and Understanding-Team trust and commitment

TOTAL: 30hrs**Course Outcome**

At the end of this course, the student will be able to

CO1:Collect and analyze data for the purpose of resolving an issue(s) directly related to organizational behavior.

CO2:Undertake complete and submit a project using appropriate planning, methodological, evaluative and presentation techniques.

CO3:Create a mission statement to identify their long term goals.

CO4:Identify characteristics of successful people.

CO5:Develop skill to team building

Reference books

1. Managing Soft Skills And Personality--B N GhoshMcgraw Hill Publications
2. Principles and Practices of Management Shejwalkar and Ghanekar McGraw Hill Latest
3. Time management for Busy people – Roberta roesch, TatamcGraw-Hill Edition

Course objective: In this course, students will be provided knowledge and skills in dealing with environmental issues, disaster management, project cycle management and so on.

Unit -I Introduction and Basic Concepts of NSS 06

- a) History, philosophy, aims & objectives of NSS
- b) Emblem, flag motto, song, badge etc.,
- c) Organizational structure, roles and responsibilities of various NSS Functionaries

Unit-II NSS Programmes and Activities 06

- a) Concept of regular activities, special camping, Day Camps
- b) Basis of adoption of village/slums, Methodology of conducting Survey
- c) Financial pattern of the scheme
- d) Other youth prog./schemes of GOI
- e) Coordination with different agencies
- f) Maintenance of Diary

Unit-III Understanding Youth 06

- a) Definition, profile of youth, categories of youth
- b) Issues, challenges and opportunities for youth
- c) Youth as an agent of social change

Unit-IV Community Mobilization 06

- a) Mapping of community stakeholders
- b) Designing the message in the context of the problem and culture of the community
- c) Identifying methods of mobilization
- d) Youth – adult partnership

Unit -V Volunteerism and Shramdan 06

- a) Indian Tradition of volunteerism
- b) Needs & Importance of volunteerism
- c) Motivation and Constraints of Volunteerism
- d) Shramdan as a part of volunteerism

Total: 30 hrs

Project work /Practical

Conducting Surveys on special theme and preparing a report thereof.

Course Outcome:

CO1:To learn the psychology of the youth, their issues, challenges, social responsibilities and opportunities

CO2:To learn the basic concepts of NSS, its history, philosophy, aim, growth, emblem, flag motto, batch and form.

CO3:To understand what is volunteerism and selfless service.

CO4:To know various activities under NSS.

CO5:To learn different programs that could be conducted under NSS.

Course objective: In this course, students will be provided knowledge and skills in dealing with environmental issues, disaster management, project cycle management and so on.

Unit-I	Importance and Role of Youth Leadership	06
a) Meaning and types of leadership		
b) Qualities of good leaders; traits of leadership		
c) Importance and role of youth leadership		
Unit-II	Life Competencies	06
a) Definition and importance of life competencies		
b) Communication		
c) Inter Personal		
d) Problem – solving and decision-making		
Unit-III	Social Harmony and National Intergration	06
a) Indian history and culture		
b) Role of youth in peace-building and conflict resolution		
c) Role of youth in Nation building		
Unit-IV	Youth Development Programmes in India	06
a) National Youth Policy		
b) Youth development Programmes at the National level, State Level and Voluntary sector		
c) Youth-focused and Youth –led organizations		
Unit -V	Environment Issues	06
a) Environment conservation, enrichment and Sustainability		
b) Climate change		
c) Waste management		
d) Natural resource management (Rain water harvesting, energy conservation, waste land development, soil conservations and afforestation)		

Total: 30 hrs

Project work /Practical

Conducting Surveys on special theme and preparing a report thereof.

Course Outcome:

CO1:To know what is national youth policy.

CO2:To practice the approach of problem solving and decision making in a critical situation for an issue.

CO3:To understand the importance of social harmony and nation integration.

CO4:To practice about youth leadership.

CO5:To learn the importance of life competencies.

