SACRED HEART COLLEGE (AUTONOMOUS), THEVARA KOCHI, KERALA, 682013

CHOICE BASED CREDIT AND SEMESTER SYSTEM (CBCSS)

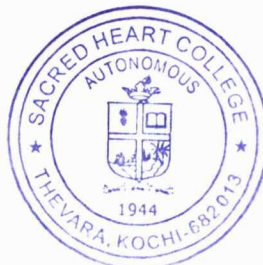## CURRICULUM AND SYLLABI

FOR

UNDERGRADUATE PROGRAMME IN
ANIMATION AND GRAPHIC DESIGN

INTRODUCED FROM 2015 ADMISSION ONWARDS

BOARD OF STUDIES IN ANIMATION AND GRAPHIC DESIGN
SACRED HEART COLLEGE, THEVARA, KOCHI, KERALA

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OBJECTIVE

The graphic design and animation program prepares graduates for a wide range of careers in the industry such as publication design, advertising design, animation, broadcast design, interactive design and illustration.

The skills taught in the courses encompass craft at a technical level; yet also include design, drawing, critical thinking, creativity, daring, collaboration, and a fundamental awareness of theory and history. Throughout the program, students are engaged in all aspects of animation/graphic design production, from concept development and production design to the completion of finished segments.

INTRODUCTION

The program begins with design/animation history, theory and traditional hand skills, and then progresses to current design/animation practices and technology. Students create animations, logos, multimedia/interactive applications, packaging, posters, publications, web pages and more. The program encourages innovation while stressing strong technical and presentation skills. Students gain a background in design/animation history and theory and then experiment and develop their own creative approaches. The Candidates become eligible for a Degree after six-semesters of study, spanning over a period of 3 years and successful completion of the Examination.

COURSE DURATION

The course will be completed over a period of 3 years, as 6 semesters. Every semester will consist of 125 hours of instruction and apart from this there will be workshops, debates and exhibitions in every semester regarding relevant topics.

COURSE SUMMARY

·   Candidates must have cleared Senior Secondary School (10+2) or equivalent examination or Graduate in any field.
·   Candidates must clear a written test, based on aptitude and general topics related to media and English, and an interview.
·   The written test and interview will have equal weightage (i.e. 50:50), based on which, a merit list will be drawn.
·   10% of the total intake of Students for admission may be reserved for Graduates and Post-Graduates in any Subject, provided they come in the merit list of the Candidates for admission. There will be separate merit lists for +2 and Degree Categories based on a common entrance test as stated at (ii). If the seats reserved for any of these categories fall short, it will be compensated from the existing list.

EVALUATION

There shall be an End Semester examination (ESE) either written or practical for each paper. A paper carries a total of 100 marks each. The distribution of marks in each paper shall be 50% for ESE and 50 % for internal evaluation. Two Internships carries 50 marks each.   The total marks for the entire course is **1750.**

COURSE SUMMARY

Course Name	Theory Hours	Practical Hours	Credit theory	Credit practical	Credit
English I Creative Writing	3	0	3	0	3
Art and Visual Perception I	4	0	4	0	4
Elements of Graphic Design Design	2	4	2	2	4
History of Animation I	1	5	1	3	4
Drawing for Animation	0	6	0	3	3
					18
Raster Graphics for Designers	0	5	0	5	5
History of Animation II	2	4	2	2	4
Reproduction Techniques	0	4	0	3	3
Vector Graphics for Designers	0	5	0	5	5
Animation Studio I	0	5	0	5	4
Environmental Studies					4
					25
Art and Society	3	0	3	0	3
Design Studio I	0	5	0	4	4
Motion Studies	1	5	1	3	4
3D Animation I	1	5	1	3	4
Scripting & Storyboarding for Animation	2	3	2	3	5
					20
Animation Studio II	0	5	0	4	4
Design Studio II	0	5	0	4	4
3D Animation II	1	5	1	3	4
Typography	2	3	2	3	5
Interaction Design	2	2	2	2	4
					21
Animation Studio III	0	5	0	4	4
Information Design	2	4	2	2	4
Animation for Web	0	4	0	4	4
Motion Graphics	2	4	2	2	4
Editing Principles	2	2	2	2	4
					20
Animation Project					10

COURSE SUMMARY

Graphic Design Project					10
					20
Total Credits					124

INTERNSHIP (on the job training)

The candidates will have to undergo two Internships, during the course. The first internship (2 Weeks) will be at a professional Design Studio after the completion of the Second Semester. The second Internship (2Weeks) will be at an Animation Studio after the 4th Semester. The candidates will prepare a comprehensive Report. The Report should be attested by the organisation where the candidate did the Internship and the Report will be submitted to the HOD for evaluation. A member of the faculty will supervise the candidates during their Internship.

PASS REQUIREMENTS

·   The aggregate marks (external + internal) required for a pass in each paper including Internship shall be 40%. The pass minimum for External   (Written/Practical) shall be 35% and 40% for internal evaluation. All the components of the internal evaluation will be considered as a single unit.

·   The candidates failing in any papers in the semester examinations will have to reappear for the same along with the junior batch. (There will be no separate supplementary examination for the failed candidates). Internal marks secured by the candidate will be carried over to the supplementary appearance. The candidates will have to re-do/re-appear only the part in which he/she has failed to secure the minimum. In case a candidate fails in the Internal evaluation he/she will have to re-do the same altogether with the subsequent batch, as a supplementary candidate.

EVALUATION AND GRADING

Evaluation: The evaluation scheme for this course shall contain two parts; (a) internal evaluation (ISA) and (b) external evaluation (ESA). 50 marks shall be given to internal evaluation and 50 marks to external evaluation so that the ratio between internal and external mark is 1:1. Both internal and external evaluation shall be carried out in mark system. Both internal and external marks are to be mathematically rounded to the nearest integer.

Internal evaluation: The internal evaluation shall be based on predetermined transparent system involving periodic written tests, assignments, seminars/viva/field survey and attendance in respect of theory courses and based on written tests, lab skill/records/viva and attendance in respect of practical courses. The marks assigned to various components for internal evaluation is a follows.

Components of Internal Evaluation

All the components of the internal evaluation are mandatory

a) For Theory

	Components	Marks
i.	Attendance	5
ii	Seminar/ exhibition/ screening	10
iii	Assignments	15
iv	CIA written tests (2x5)	10
v	workshops	10
	Total	50

b) For Practical

	Components	Marks
i.	Attendance	5
ii	Seminar/ exhibition/ screening	10
iii	Assignments	15
iv	Jury/ CIA written tests (2x5)	10
v	workshops	10
	Total	50

c) guidelines for projects shall be provided with conduct of each course

Evaluation of

Attendance

% of attendance	Marks
Above 90%	5
Between 85 and < 90	4
Between 80 and below 85	3
Between 76 and below 80	2
75	1

Assignment

Components	Marks
Punctuality	2
Content	7
Research	3
Presentation	3
Total	**15**

Seminar

Components	Marks
Content	5
Presentation	2
Research	3
Total	**10**

To ensure transparency of the evaluation process, the internal assessment marks awarded to the students in each course in a semester shall be published on the notice board at least one week before the commencement of external examination. There shall not be any chance for improvement for internal mark.

The course teacher and the faculty advisor shall maintain the academic record of each student registered for the course which shall be forwarded to the controller of examinations through the Principal and a copy should be kept in the college for at least

two years for verification.

External Evaluation: The external examination in theory courses shall be conducted by the college with question papers set by external experts/ question bank. The evaluation of the answer scripts shall be done by the examiners based on a well defined scheme of evaluation given by the question paper setters. The external evaluation shall be done immediately after the examination preferably through the centralised valuation.

The question paper should be strictly on the basis of model question paper set by BoS with due weightage for each module of the course and there shall be a combined meeting of the question paper setters and experts for scrutiny for finalisation of question paper. Each set of question should be accompanied by its scheme of valuation.

For all courses (theory & practical), Letter grades and grade point are given on a 10-point scale based on the total percentage of marks, (ISA+ESA) as given below:-

Percentage of Marks	Grade	Grade Point (GP)
95 and above	O Outstanding	10
85 to below 95	A^+ Excellent	9
75 to below 85	A Very Good	8
65 to below 75	B^+ Good	7
55 to below 65	B Above Average	6
45 to below 55	C Average	5
40 to below 45	D Pass	4
Below 40	F Fail	0
	Ab Absent	0

Grades for the different semesters and overall programme are given based on the corresponding GPA as shown below:

GPA	Grade
Equal to 9.5 and above	*O Outstanding*
Equal to 8.5 and below 9.5	*A+ Excellent*
Equal to 7.5 and below 8.5	*A Very Good*
Equal to 6.5 and below 7.5	*B+ Good*
Equal to 5.5 and below 6.5	*B Above Average*
Equal to 4.5 and below 5.5	*C Average*

Equal to 4.0 and below 4.5	**D**	***Pass***
Below 4.0	**F**	***Failure***

In order to pass in both internal and external evaluations, each student must pass with a **separate minimum of 30% marks** and an **aggregate minimum of 40% marks.**
A candidate who has not secured minimum marks/credits in internal examinations can re-do the same registering along with the end semester examination for the same semester, subsequently.

A student who fails to secure a minimum marks/grade for a pass in a course will be permitted to write the examination along with the next batch.
There will be no supplementary/improvement examinations

After the successful completion of a semester, Semester Grade Point Average (SGPA) of a student in that semester is calculated using the formula given below. For the successful completion of semester, a student should pass all courses and score a minimum SGPA of 4.0 However, a student is permitted to move to the next semester irrespective of her/his SGPA.

Credit Point (CP) of a course is calculated using the formula

$$CP = Cr \ x \ GP, \text{ where Cr = Credit; GP = Grade point}$$

Semester Grade Point Average (SGPA) of a Semester is calculated using the formula

SGPA = TCP/TCr, where

TCP = Total Credit Point of that semester $= \sum_1^n \ CPi;$

TCr = Total Credit of that semester $= \sum_1^n \ Cri$

Where n is the number of courses in that semester

Cumulative Grade Point Average (CGPA) of a Programme is calculated using the formula

$$CGPA = \frac{\sum \ \frac{(TCP \times TCr)}{\sum \ TCr}}{} \ GPA \ shall \ be \ round \ off \ to \ two \ decimal \ places$$

PATTERN OF QUESTIONS

Questions shall be set to assess knowledge acquired, standard, application of knowledge, application of knowledge in new situations, critical evaluation of knowledge and the ability to synthesize knowledge. The question setter shall ensure that questions covering all skills are set. He/ She shall also submit a detailed scheme of evaluation along with the question paper.

A question paper shall be a judicious mix of, multiple /objective ,short answer type, short essay type /problem solving type and long essay type questions.

Pattern of questions for external examination for theory paper

Type of Questions	Total no. of questions	Number of questions to be answered	Marks of each question	Total marks
Section A – Short Answer	8	5	2	10
Section B- Short essay/ Problems	8	4	5	20
Section C- Long essay	3	2	10	20
	19	**11**		**50**

Pattern of questions for external examination of practical papers will decided by Practical exam board chairman as per the guidelines of Board of Studies.

Course| Subject Code	Exam Type (*Theory/Practical*)
Semester I	
15U1CCAGD1: English I Creative Writing	T
15U1CCAGD2: Art and Visual Perception I	T
15U1PRAGD1: Elements of Graphic Design	P
15U1CPPNT1: History of Animation I	T
15U1PCNMD1: Drawing for Animation	P
Semester II	
15U2PRAGD2: Raster Graphics for Designers	P
15U2CPPNT2: History of Animation II	T
15U2PCNMD2: Reproduction Techniques	P
15U2PCNMD3: Vector Graphics for Designers	P
15U2PCNMD4: Animation Studio I	P
15U2ARENV1: Environmental Studies	
Semester III	
15U3CRAGD1: Art and Society	T
15U3PRAGD3: Design Studio I	P
15U3PRAGD4: Motion Studies	P
15U3PRAGD5: 3D Animation I	P
15U3PCPNT3: Scripting & Storyboarding for Animation	P
Semester IV	
15U4PRAGD6: Animation Studio II	P
15U4PRAGD7: Design Studio II	P
15U4PRAGD8: 3D Animation II	P
15U4PCPNT4: Typography	P
15U4PCNMD5: Interaction Design	P
Semester V	
15U5PRAGD9: Animation Studio III	P
15U5PCPNT5: Information Design	P
15U5PCNMD6: Animation for Web	P
15U5PCNMD7: Motion Graphics	P
15U5OCAGD1: Editing Principles	P
Semester VI	
15U6PJAGD1: Animation Project	P
15U6PJAGD2: Graphic Design Project	P
15U6INAGD2: Internship I	
15U6INAGD1: Internship II	

15U1CCAGD1
ENGLISH I CREATIVE WRITING

OBJECTIVE

To attain conversational skills for formal occasions such as club meetings, social gatherings, formal discussions at professional meetings and interviews.

· Creative writing helps students to express creatively their feelings.

· Some interpretative writing, dealing with its subject from a limited personal point, will also be taught.

UNIT I   How to introduce oneself and one's friends to others.
              How to invite someone to an important event.

UNIT II   How to make a request.
              How to ask for help and how to refuse help politely.

UNIT III   How to initiate a conversation with a total stranger.
              How to complain effectively.
              How to make suggestions and how to say goodbye.

UNIT IV   Book Reading
              Short Stories

UNIT V   Book Reviews
              Movie Critique

REFERENCE

1. Alger, Ralph K.*, Basic Review of English*, Cambridge Book Company, 1959
2. Hedge, Tricia, Writing, OUP, 1988
3. Freeman, Sarah, *Written Communication in English*, Orient Longman, 1979
4. Broughton, Geoffry, *Success With English*, Penguin, 1970
5. Taylor, Grant, *English Conversation Practice*, MacGraw Hill Education, 2005
6. O' Neill, R. *English in Situations*, OUP, 1980

15U1CCAGD2
ART AND VISUAL PERCEPTION I

OBJECTIVE

To strengthen the artistic background of the student to a cognizable level.

UNIT I   The nature and purpose of narrative art - Man's desire to repeat pleasant events – Enjoyment of re-creation – Memory and imagination - Origin of Story - Verbal narration.

UNIT II   Pre-historic attempts at re-creation - Attempts of the cave man – Non- verbal communication - Recreation of an event through symbolic art -Flagellants of Mexico - Dionysia of ancient Greeks.

UNIT III   Aristotelian concept of art - Imitation of Reality – Empathy - Concept of Tragic Hero and Tragedy - Classical Theatre forms - Greek and Sanskrit.

UNIT IV   Brief History of Art- Different art forms – Environmental Art – Architecture – Sculpting - Performing Art - Literature and Poetry, Drama, Music, Dance, – Photography - Moving images.

UNIT V   Perception of movement through images - Line of Force - Composition - The Art of Colour and Lighting - Mixing of colour lights - Mixing of painter's pigments.

REFERENCE

1. Aristotle. *Poetics*.Penguin Classics,26 September 1996
2. Prieto, Rosi. *A Concise History of Art: The Western World*. Kendall Hunt Pub Co, 14 December 2009
3. Ball, Victoria Kloss. *The Art of Interior Design: A Text in the Aesthetics of Interior Design.* Literary Licensing, LLC, 1 October 2011
4. Arnheim, Rudolf . *Film as Art*. University of California Press; 2nd Revised edition edition, 10 March 2006
5. Read, Herbert. *The Meaning of Art*. Faber & Faber; Indian export edition, 20 November 2003
6. Moberg, Eric Michael. *The Art of Composition*. CreateSpace Independent Publishing Platform, 11 September 2012
7. Graves, Maitland E. *Art of Colour and Design*. McGraw-Hill Inc.,US; 2nd Revised edition, 1 January 1951
8. Arnheim, Rudolf. *Art and Visual Perception.* University of California Press; 2nd Revised edition, 10 December 2004
9. Nurnberg, Walter. *Lighting for Portraiture* .Chilton Book Company; 7th Revised edition, 1 May 1969
10. Eastman, Kodak . *Kodak Pocket Guide to 35mm Photography.* Eastman Kodak Co ,U.S.; Revised edition, 1 September 1989

11. Cox , Arthur N. *Photographic Optics (The Manuals of Photo-Technique).* Focal Press; 15th Revised edition, 1 December 1974.

15U1PRAGD1

ELEMENTS OF GRAPHIC DESIGN

OBJECTIVE

·   Fundamental components of design theory are introduced in this course.
·   Students learn to use creative thinking to solve communication problems.

UNIT I   Introduction to basic elements and concepts of visual design: line, texture, color, form balance, proportion, size, shape, mass, unity and variety.

UNIT II   Exercises on visual composition and layout. The use of grids in graphics composition.

UNIT III   Concepts of visual design, visual structure and visual interest, visual analysis and refinement of visual representations.

UNIT IV   Form in nature, Generation of visual images with analogies from nature. Relationship of colour and form. The use of colours, composition with colour.

UNIT V   Design methodology, problem-solving, the relationship of visual form to meaning, type / image relationships.

REFERENCE

1.   Meggs, Philip. *A History of Graphic Design*. John Wiley & Sons, 1998
2.   White, Alexander W. *The Elements of Graphic Design*. Allworth Press, Second Edition, March 15, 2011
3.   Evans, Poppy.*Exploring the Elements of Design*. CENGAGE Learning Custom Publishing, 3rd edition 12 March 2012
4.   Chwast, Seymour. *Graphic Style : From Victorian to Digital*. Harry N. Abrams,Subsequent edition , March 1, 2001
5.   Larking, Eugine. Design*: The Search for Unity*. William C Brown Pub, October 1987

15U1CPPNT1

HISTORY OF ANIMATION I

OBJECTIVE

- · This course focuses on the history and aesthetics of animation, with references to related arts such as live-action cinema, puppetry and comics.
- · Screenings include a wide range of commercial and experimental works produced throughout the world.

UNIT I   A brief prehistory – Phenakistoscope, Praxinoscope ,Kinetsocope, Zoetrope, Thaumatrope, early comic strips.

UNIT II   Pioneers in animation - Winsor McCay, Otto Messmer, Max Fleischer, Walt Disney, John Bray. Use of cells, peg system.

UNIT III   The Disney feature films – development of the Disney style, evolution of the principles of animation.

UNIT IV   American animation: Silent era and Golden era

UNIT V   American animation: Television and Renaissance

REFERENCE

1. Leonard Maltin, *Of Mice and Magic: A History of American Animated Cartoons*, Plume (2 October 1980)
2. Charles Solomon, *The History of Animation*, Random House Value Publishing; Revised edition (16 October 1994)
3. Jonathan Clements & Helen McCarthy, *The Anime Encyclopedia: A Guide to Japanese Animation Since 1917*, Titan Books Ltd (27 April 2007)
4. Charles Solomon ,*Enchanted Drawings: The History of Animation* , Knopf (14 November 1989)

15U1PCNMD1

DRAWING FOR ANIMATION

OBJECTIVE

- · This course is intended to provide the student a basic understanding of drawing techniques for animation.
- · Students develop a basic skill in drawing through various exercises.

UNIT I	Introduction to drawing fundamentals - Drawing lines, curves and shapes - Basic shapes and forms - Rendering 3D forms - Shading and shadows - Types of shadows - Drawing still life.
UNIT II	Perspective drawing - Leonardo's window - Vanishing point and orthogonal lines - Single point perspective - Overlapping and intersection - Two point perspective - Overlapping and intersection in two point perspective - Three point perspective – Foreshortening.
UNIT III	Cartoon construction - Construction of the head - Facial expressions - squash and stretch on heads - Character types - Cute, screwball, goofy characters - Basic features of the different character types.
UNIT IV	Types of characters - Realistic and stylized - Sketching basics - Drawing cartoon characters - Drawing birds - Animal characters - Drawing kids - Drawing fairytale characters like gnomes, elves, dwarfs.
UNIT V	Figure drawing - Proportions of the male and female - Human skeletal system – Skull - Hand and leg bones - Drawing a human model – Contour Drawing and Gesture Drawing.

REFERENCE

1. Preston Blair, *Cartoon Animation (Collector's Series)* Walter Foster Publishing (1 January 1994)
2. Richard Williams, *Animator's Survival kit,* Faber; Main - Revised Edition (5 November 2009)
3. Andrew Loomis, *Drawing the Head and Hand,* Titan Books (25 October 2011)
4. Victor Perard, *Anatomy and Drawing,* New Enlarged Edition (1 December 2006)

15U2PRAGD2
RASTER GRAPHICS FOR DESIGNERS

OBJECTIVE

This course is designed to help graphic designers master professional studio techniques - including custom typographic treatments and special photographic effects - in Adobe Photoshop.

UNIT I   Introduction to raster images – Image resolution - RGB, CMYK Indexed colour modes and their applications, Basic drawing in Photoshop – Using airbrush, pencil, paint brush tools.

UNIT II   Concept of layers in Photoshop – Transparency and blending modes – creative use of layers and blending modes.

UNIT III   Using the selection tools, using the path tool to create selections – Type tools in Photoshop. Introduction – Bitmap Painting and Vector Drawing, colours, colour variability and gradients, file types, formats, resolution and size.

UNIT IV   Channels – using alpha channels to save selections – Colour correction in Photoshop – adjusting hue, saturation and value of images. Paint packages – Photoshop, painter. Selections and masks, custom brushes, working with layers.

UNIT V   Advanced colour correction and image manipulation techniques – using filters and effects – preparing images for print and web.

REFERENCE

1. Adobe Creative Team. *Adobe Photoshop CS4 Classroom in a Book*. Adobe, 1st edition, 10 November 2008
2. Kelby, Scott. *The Adobe Photoshop CS4: Book for Digital Photographers*.New Riders, 1 edition, January 1, 2009
3. Lynch, Richard. *The Adobe Photoshop CS4 Layers Book*. Focal Press, 1st Edition, November 8, 2011

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15U2CPPNT2
HISTORY OF ANIMATION II

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OBJECTIVE

·   This course focuses on the history and aesthetics of animation, with references to related arts such as live-action cinema, puppetry and comics.
·   Screenings include a wide range of commercial and experimental works produced throughout the world.

UNIT I   Animation in Europe

UNIT II   Canada – Experimental animations from the National Film Board of Canada

UNIT III   Japanese animation – anime, manga styles – the Miyazaki feature films.

UNIT IV   Growth of computer animation – the Pixar movies, 3D feature films.

UNIT V   Animation in India.

REFERENCE

1. Leonard Maltin,   *Of Mice and Magic: A History of American Animated Cartoons*, Plume (2 October 1980)
2. Charles Solomon, *The History of Animation*, Random House Value Publishing; Revised edition (16 October 1994)
3. Jonathan Clements & Helen McCarthy, *The Anime Encyclopedia: A Guide to Japanese Animation Since 1917*, Titan Books Ltd (27 April 2007)
4. Charles Solomon ,*Enchanted Drawings: The History of Animation* , Knopf (14 November 1989)
5. Terrence Masson, CG 101: *A Computer Graphics Industry Reference*, New Riders Press; 1 edition (August 26, 1999)
6. Tom Sito , Moving Innovation: *A History of Computer Animation* , The MIT Press (August 21, 2015)
7. Christopher Finch, *The CG Story: Computer-Generated Animation and Special Effects* , The Monacelli Press (December 3, 2013)
8. Garth Gardner PhD, *Computer Graphics and Animation: History*, Careers, Expert Advice , Garth Gardner Company (July 2002)

15U2PCNMD2
REPRODUCTION TECHNIQUES

OBJECTIVE

- A study of printing technology. Introduction to all the major processes of printing.
- Attention is drawn to the influence of printing process on design.

UNIT I   History of printmaking - different printing techniques – letter press, screen printing, engraving, gravure & offset printing.

UNIT II   Screen printing process - Screen Preparation, printing and Screen Reclamation, screen printing inks - Exercises in screen printing.

UNIT III   Study of letter press – plate preparation, photo engraving. Letter press printing assignment.

UNIT IV   Offset printing – preparing artwork, plate-making process, offset printing machines, printing inks.

UNIT V   Study of Desktop printing technology – laser, inkjet, photocopiers.

REFERENCE

1. Kosloff, Albert. *Screen Printing Techniques*. St Books, 1 April 1981
2. Speirs, Hugh M. *Introduction to Printing Technology*. Routledge; 4th Revised edition, 1 May 1992
3. Daniel Berke Updike. *Printing Types, Their History, Forms, and Use: A Study in Survivals,* Arkose Press, 16 October 2015

15U2PCNMD3
VECTOR GRAPHICS FOR DESIGNERS

OBJECTIVE

- · This course covers the most popular illustration programs used by graphic designers.
- · The potential applications for these programs are explored, from fine-tuned illustrations to successful typographic studies.
- · Emphasis is placed on both technical and artistic mastery.

UNIT I   Introduction to vector graphic programs – Adobe Illustrator, Macromedia Freehand. Properties of vector graphics - Stroke and fill tools – basic shapes, Bezier drawing with the pen tool.

UNIT II   Creative use of shapes – using the pathfinder – Boolean operations using shapes.

UNIT III   Vector drawing techniques – node editing – tracing from raster images – different styles of vector illustrations.

UNIT IV   Using colour in vector graphics – different colour palettes – gradients and gradient mesh. Vector drawing with Illustrator – Bezier curves, pen tool, strokes and fills, gradients – different styles in vector illustrations.

UNIT V   Using type tools and type controls – type along a path – using filters and effects. Digital Illustration applications - Exploring 3d illustration techniques.

REFERENCE

1. Adobe Creative Team. *Adobe Illustrator CS4 Classroom in a Book.* Adobe, 1st edition, 27 May 2012
2. Jenkins, Sue. *How to Do Everything: Adobe Illustrator CS4*. McGraw-Hill Osborne, 1st edition, 1 April 2009
3. Botello, Chris. *Adobe. Illustrator CS4 Revealed*. Course Technology, 1st edition , May 21, 2009

15U2PCNMD4
ANIMATION STUDIO I

OBJECTIVE

Students learn the basic principles of animation through studio exercises.

UNIT I   Creating a flip book using drawings.

UNIT II   Animation Overview, Line of Action, Solidity, Wave Principle, Timing & Spacing. Planning an animation, Using exposure sheets, Timing and spacing.

UNIT III Squash and Stretch, Ease-in/Ease-out, Anticipation, Action Reaction, Overlap and Follow Through.

UNIT IV   Arcs, Cycling Animation, Walk, Run and Sneak cycles, Surprise Reaction -Takes and Double Takes.

UNIT V   Staging and Appeal, Exercises in fine-tuning animation.

REFERENCE

1. Eadweard Muybridge , *The Human Figure in Motion*, Dover Publications (June 1, 1955)
2. Eadweard Muybridge,*Animals in Motion*, Dover Publications; 1st edition (June 1, 1957)
3. Osamu Tezuka ,*Tezuka School of Animation,* Watson-Guptill; First Edition (September 1, 2003)
4. Tony White, *How to Make Animated Films: Tony White's Complete Masterclass on the Traditional Principals of Animation* , Focal Press; 1 edition (May 12, 2009)

15U3CRAGD1
ART AND SOCIETY

UNIT I   Art and ancient civilization - Indian, Greek, Chinese, and Egyptian.

UNIT II   Man's thought process and sense of movement - Pictorial origins of written language.

UNIT III   Birth of Sagas - Valmiki, Homer, Virgil - Bharath Muni - Attempt at codification - NatyaSastra – Epics – Ramayana – Mahabharata.

UNIT IV   A short history of art from 500 BC to AD 1930. Contemporary trends in art.

UNIT V   Art management and research

REFERENCE

1. Ramsaye, Terry. *Million and One Nights: A History of the Motion Picture Through 1925*. Touchstone Books; Reprint edition, 1 May 1986
2. Ghosh, Manomahan. *Natyasastra: A Treatise on Ancient Indian Dramatory and Histrionics Ascribed to Bharata Muni*. Chowkhamba Sanskrit Series Office, 1 January 2009
3. Fischer, Ernst . *The Necessity of Art* . Verso; Reissue edition, 14 June 2010
4. Hauser, Arnold . *Social History of Art*. Routledge; New edition, 31 March 1951
5. Arnheim, Rudolf. *Art and Visual Perception*. University of California Press; 2nd Revised edition, 10 December 2004
6. Heraty, Jack . *Encyclopedia of World Art*. Encyclopedia of World Art, 1 September 1987
7. Brown,Percy .*Indian Architecture: Buddhist and Hindu* . CBS Publishers & Distributors; 1st Ed. edition, 2014
8. Brown,Percy . *Indian Architecture: Islamic Period*. CBS Publishers & Distributors; 1st Ed. edition, 2014

15U3PRAGD3
DESIGN STUDIO I

OBJECTIVE

- In this course, students develop creative strategies for problem solving and investigate design issues.
- The focus is on establishing effective design methods.

UNIT I   Techniques of representation to acquire the necessary skill to represent visual images. Exercise on converting visual images into 2D representation.

UNIT II   Corporate Design - students design a corporate logo.

UNIT III   Symbols and Signage – graphic symbol design project.

UNIT IV   Poster design project – students design a poster for an event/cause/awareness campaign.

UNIT V   Brochure design project - students design a brochure for an event/cause/awareness campaign.

REFERENCE

1. W. de Jong, Cees, Burger, Stefanie & Both, Jorre. *New Poster Art*. Thames & Hudson Ltd, 16 June 2008
2. Gallo, Max; Quintavalle, Carlo Arturo;Flowers, Charles. *The Poster in History*. W. W. Norton & Company, 16 January 2002
3. Napoles, Veronica . *Corporate Identity Design (VNR Book)* . John Wiley & Sons, 1 November 1987
4. Samara, Timothy . *Typography Workbook: A Real-World Guide to Using Type in Graphic Design* . Rockport Publishers; New edition, 1 November 2006
5. Holland, Dk. *Design Issues: How Graphic Design Informs Society* . Allworth Press, 1 November 2001

15U3PRAGD4
MOTION STUDIES

OBJECTIVE

Different methods for creating animation are explored in this course.

UNIT I   Introduction to animation techniques – drawn, cut out& stop motion.

UNIT II   Creating a cutout animation - group assignment.

UNIT III   Creating a flip book using drawings - group assignment.

UNIT IV   Creating a stop motion animation – group assignment.

UNIT V   Exploring other methods in animation - group assignment.

REFERENCE

1. 2. Chris Jackson, Flash Cinematic Techniques: Enhancing Animated Shorts and Interactive Storytelling , Focal Press; 1 edition (January 25, 2010)
2. Preston Blair **,** Cartoon Animation (Collector's Series) Walter Foster Publishing (1 January 1994)
3. Richard Williams , Animator's Survival kit, Faber; Main - Revised Edition edition (5 November 2009)

15U3PRAGD5
3D ANIMATION I

OBJECTIVE

Students are introduced to 3D animation using any one of the popular 3D Animation Softwares like Softimage XSI, Blender, Autodesk Maya or Autodesk 3Ds Max.

UNIT I   Digital Animation workflow, Animation Packages, Parametric Modeling and Key frame Animation.

UNIT II   Modeling using polygons and sub divisional surfaces.

UNIT III   Basic lighting concepts, Applying textures and shaders.

UNIT IV   Basic shaders, Maps, Designing materials using textures from various sources.

UNIT V   Deformations, Bones, Camera, Rendering, 3D Environments, Architectural Walkthroughs.

REFERENCE

1. Jeremy Birn ,Digital Lighting and Rendering, New Riders Press (July 17, 2000)
2. William Vaughan , Digital Modeling, New Riders; 1 edition (January 2, 2012)
3. Kelly Murdock, Kelly L. Murdock's Autodesk 3ds Max 2016
4. Complete Reference Guide, SDC Publications (August 12, 2015)
5. Kelly L. Murdock , Autodesk 3ds Max 2014 Bible, Wiley; 1 edition (November 4, 2013)

15U3PCPNT3
SCRIPTING AND STORYBOARDING FOR ANIMATION

OBJECTIVE

- Students learn process through the practice of research, critical analysis, brainstorming and improvisational techniques to create ideas for effective animation.
- Material created in this class will form a foundation for subsequent conceptual work in the animation project.

UNIT I   Conceptualizing a story – storytelling methodologies.

UNIT II   Story development, character, and the content in relation to the animated short.

UNIT III   Storytelling methods - dramatic structure, character and visual effectiveness.

UNIT IV   Composition and frame, directing methodologies, editing principles and sound elements.

UNIT V   Students create simple storyboards, work with other visual media and write short story treatments and scripts.

REFERENCE

1. David Harland Rousseau**,** Storyboarding Essentials: SCAD Creative Essentials, Watson-Guptill (June 25, 2013)
2. Ed Ghertner, Layout and Composition for Animation, Focal Press; 1 edition (July 7, 2010)
3. Francis Glebas, Directing the Story: Professional Storytelling and Storyboarding Techniques for Live Action and Animation, Focal Press; 1 edition (October 9, 2008)
4. Fraser MacLean, Setting the Scene: The Art & Evolution of Animation Layout , Chronicle Books (November 16, 2011)

15U4PRAGD6
ANIMATION STUDIO II

OBJECTIVE

This course concentrates on study and analysis of human and animal movement.

UNIT I Straight Ahead Action and Pose-to-Pose Action, Exaggeration & Secondary Action.

UNIT II Applying motion principles in animation – exaggerating natural motion for animation. Weight, Mass and movement – exercises in weight and mass, Secondary Action, Fast Action.

UNIT III Study of gestures – analysis of human and animal gestures

UNIT IV Study of skeletal pivot points, figure weight, balance and momentum.

UNIT V Analysis of the two legged and four legged walk and run.

REFERENCE

1. Preston Blair, Cartoon Animation (Collector's Series) Walter Foster Publishing (1 January 1994)
2. Richard Williams, Animator's Survival kit, Faber; Main - Revised Edition (5 November 2009)
3. Andrew Loomis, Drawing the Head and Hand, Titan Books (25 October 2011)
4. Victor Perard, Anatomy and Drawing, New Enlarged Edition (1 December 2006)

15U4PRAGD7
DESIGN STUDIO II

OBJECTIVE

This course consolidates previous graphic design knowledge and skills, offering students the opportunity to focus on a major, self-initiated design project.

UNIT I   Introduction to layout and design of publications.

UNIT II   Historical and current practices and technologies used to produce multi-page publications.

UNIT III   Publication design short project - visualizations for several publications using the elements of layout with typography and art.

UNIT IV   Packaging Design - students explore 3-D form and surface graphics by designing containers for a variety of products and construct 3-D prototypes.

UNIT V   Identity design – students work on developing a visual identity for a company/product.

REFERENCE

1. E. Carte, David. *The Big Book of Layouts*. Harper Design, 16 June 2009
2. Tondreau, Beth. *Layout Essentials: 100 Design Principles for Using Grids*. Rockport Publishers, 1 February 2009
3. Cullen, Kristin. *Layout Workbook: A Real-World Guide to Building Pages in Graphic Design*. Rockport Publishers, 1 May 2007
4. Hurlburt, Allen . *Grid: A Modular System for the Design and Production of Newpapers, Magazines, and Books* . Wiley; 1 edition, 21 April 2008
5. Hochuli, Jost and Kinross, Robin. *Designing Books: Practice and Theory*. Hyphen Press,1 February 1997

15U4PRAGD8
3D ANIMATION II

OBJECTIVE

Students learn the basic principles of animation through 3D techniquesand are studied in detail in this course.

UNIT I   Animation Overview, Line of Action, Solidity, Wave Principle, Timing & Spacing. Squash and Stretch, Ease-in out & Ease in/Ease-out, Anticipation, Action Reaction, Overlap and Follow Through. Weight, Mass and movement – exercises in weight and mass, Secondary Action, Fast Action.Arcs, Cycling Animation, Walk, Run and Sneak cycles, Surprise Reaction-Takes and Double Takes.

UNIT II   Inverse Kinematics, Forward Kinematics, Procedural Animation & Expressions.

UNIT III   Controlling animation using Function curves, Character Rigging and animation.

UNIT IV   Particle systems, dynamics, post production, compositing.

UNIT V   Rendering technologies – scanline, raytrace, global illumination rendering, advanced lighting and materials.

REFERENCE

1. Andrew Gahan, 3ds Max Modeling for Games: Insider's Guide to Game Character, Vehicle, and Environment Modeling, Focal Press; 2 edition (June 17, 2011)
2. Matt Chandler , Pawel Podwojewski, Jahirul Amin , Fernando Herrera , 3ds Max Projects: A Detailed Guide to Modeling, Texturing, Rigging, Animation and lighting , 3DTotal Publishing; 1st New title edition (April 1, 2014)
3. Stewart Jones, Digital Creature Rigging: The Art and Science of CG Creature Setup in 3ds Max, Focal Press; 1 edition (November 7, 2012)
4. Michele Bousquet, Rigging (3ds Max 2010 Architectural Visualization (Advanced to Expert)), CGschool (Formerly 3DATS) (October 31, 2012)

15U4PCPNT4
TYPOGRAPHY

OBJETIVE

· Through lectures, demonstrations and studio work, students are introduced to all aspects of typography.
· Strong emphasis is placed on the history of type and the technical, problem-solving and aesthetic use of display and text type.

UNIT I   History of type; The Anatomy of Type; Type Specifications; Type Classifications.

UNIT II   Designing with Type – legibility and readability, communicating a message through type, choosing appropriate typefaces.

UNIT III   Digital typography; exploring variables in type – size, weight, kerning, leading, tracking.

UNIT IV   Dynamic typography; Titling; 3d typography; Use of type in web and interactive media.

UNIT V   Malayalam Typography; Malayalam Typefaces.

REFERENCE

1. Samara, Timothy. *Typography Workbook*. Rockport Publishers, New edition, November 1, 2006
2. Bringhurst, Robert. *The Elements of Typographic Style*. Hartley & Marks Publishers, 2nd edition, 2002
3. Lupton, Ellen. *Thinking with Type*. Princeton Architectural Press, 2nd Revised edition, 6 October 2010
4. Ambrose, Gavin and Harris, Paul. *The Fundamentals of Typography*. AVA Publishing, 2nd edition, September 1, 2011
5. Carter, Rob, Day, Ben and Meggs, Philip B. *Typographic Design: Form and Communication*. John Wiley & Sons, 5th Edition edition, 2 December 2011
6. Rabinowitz,Tova. *Exploring Typography*. Thomson Delmar Learning; 1 edition, February 21, 2006

15U4PCNMD5
INTERACTION DESIGN

OBJECTIVE

Students are introduced to web authoring techniques and technologies as they learn how to create and develop basic projects in which interactivity is the focus.

UNIT I   Introduction to interactive interfaces – web, CDROM and software applications.

UNIT II   Introduction to web design – basics of html – study and analysis of web sites.

UNIT III   Information and interfaces - information structure, the interactive design process and designing visual interfaces.

UNIT IV   Advanced html, introduction to Dreamweaver, creating websites with Dreamweaver.

UNIT V   Usability in web based interfaces – study of different factors affecting usability.

REFERENCE

1. Adobe Creative Team. *Adobe Illustrator CS4 Classroom in a Book.* Adobe, 1st edition, 27 May 2012
2. Jenkins, Sue. *How to Do Everything: Adobe Illustrator CS4*. McGraw-Hill Osborne, 1st edition, 1 April 2009
3. Botello, Chris. *Adobe. Illustrator CS4 Revealed*. Course Technology, 1st edition , May 21, 2009
4. Karlins, David and Hopkins,Bruce K. *Adobe Illustrator CS4 How-Tos:100 Essential Techniques*. Adobe; 1st edition, 8 August 2007
5. Golding, Mordy. Real World Adobe Illustrator CS4. Peachpit Press, 1st Edition, December 29, 2008
6. Against The Clock Inc. *Adobe Illustrator CS4 : The Professional Portfolio*. Against The Clock Inc, 2009
7. Norman, Donald A. *The Design of Everyday Things* . Basic Books; Revised edition edition, 14 November 2013
8. Luppa, Nick. *Interactive Design for New Media and the Web* . Focal Press; 2 Pap/Cdr edition, 23 October 2001

15U5PRAGD9

ANIMATION STUDIO III

OBJECTIVE

Students go through the steps of creating an animated short from conceptualization to final output.

UNIT I   Straight Ahead Action and Pose-to-Pose Action, Exaggeration & Secondary Action.

UNIT II   Planning an animation, Using exposure sheets, Timing and spacing.

UNIT III   Creating a short animation – concept, script and storyboard development.

UNIT IV   Creating a short animation – character development.

UNIT V   Animating the storyboard – final output.

REFERENCE

1. Barry Kelly, Tim Jones, David Wolfe, Allan Rosson, Foundation Flash Cartoon Animation, Apress; 2007 edition (November 28, 2007)
2. Chris Jackson, Flash Cinematic Techniques: Enhancing Animated Shorts and Interactive Storytelling , Focal Press; 1 edition (January 25, 2010)
3. Preston Blair , Cartoon Animation (Collector's Series) Walter Foster Publishing (1 January 1994)
4. Richard Williams , Animator's Survival kit, Faber; Main - Revised Edition(5 November 2009)

15U5PCPNT5
INFORMATION DESIGN

OBJECTIVE

·   This course provides an overview of this important graphic design sub-speciality.

·   Selected studio projects emphasize visual problem solving.

UNIT I   Basics of information visualization – translating data into visuals.

UNIT II   Designing statistical information graphics.

UNIT III   The representation of objects – the process of simplification.

UNIT IV   Visualizing complex data – process of converting data into useful information using graphics.

UNIT V   Recreating events in space and time.

REFERENCE

1. Edward,Tufte. *The Visual Display of Quantitative Information.* Graphics Press USA,2nd edition,31 January 2001
2. Tufte, Edward. *Visual Explanations*. Graphics Press,1st edition, February 1, 1997 Tufte, Edward. *Envisioning Information*. Graphics Press USA,31 December 1990 Harris, Robert L. *Information Graphics*. Oxford University Press, 1 edition , January 6, 2000

15U5PCNMD6
ANIMATION FOR WEB

OBJECTIVE

·   In this course, students study animation and its uses on the Internet.
·   Students assess both the aesthetic and technical aspects of animation as they relate specifically to an online environment.

UNIT I   Introduction to web animation – gif animation, flash, shockwave 3D.Vector graphics in Flash.

UNIT II   Drawing in Flash – shapes – fill and stroke – using colours – using type in Flash.

UNIT III   Animating in Flash – shape and motion tweening – using the timeline – creating and using movie clips.

UNIT IV   Adding interactivity – basic interactivity in Flash – introduction to Actionscripting.

UNIT V   3D and Flash – using 3D elements in flash movies – introduction to game design.

REFERENCE

1.   Flash Cartoon Animation: Learn from the Pros Book by Glenn Kirkpatrick and Kevin Peaty(June 30, 2003)
2.   Hollywood 2D Digital Animation: The New Flash Production Revolution:SandroCorsaro, Clifford J. Premier Press edition (17 March 2004)
        The Art of Cartooning with FlashTM: The Twinkle Guide to Flash Character Animation by John Kuramoto, Gary Leib and Daniel Gray (10 December 2001

15U5PCNMD7
MOTION GRAPHICS

OBJECTIVE

This course trains students in the essential vocabularies and concepts of motion graphics using type, shapes, objects and images.

UNIT I   Fundamental concepts for motion graphics, including graphics and promos for television networks and film titles and logos for advertising.

UNIT II   Time-based Typography.   Students construct graphic elements and typography for use in projects while addressing issues of motion and dynamic relationships.

UNIT III   Exploring form transitions – using shapes in motion.

UNIT IV   Introduction to 3-D Motion Graphics, foundations of 3-D environments.Modeling, textures, lighting and animating.

UNIT V   Motion graphics for the web – using Flash for creating motion graphics.

REFERENCE

1. Meyer, Chris and Meyer, Trish . *Creating Motion Graphics with After Effects: Essential and Advanced Techniques* . Focal Press, 5 edition, 29 July 2010
2. Krasner, Jon . Motion *Graphic Design: Applied History and Aesthetics* . Focal Press, 2 edition,26 February 2008
3. Krasner, Jon . *Motion Graphic Design and Fine Art Animation: Principles and Practice* . Focal Press; Pap/DVD edition (21 July 2004
   Gallagher, Rebecca and Paldy, Andrea Moore . *Exploring Motion Graphics.* Cengage Learning, Inc; Pap/Cdr edition, 31 August 2006

4. Doug Kelly, Digital Compositing In Depth: The Only Guide to Post Production for Visual Effects in Film
5. Lee Lanier, Compositing Visual Effects in After Effects: Essential Techniques, Focal Press (November 6, 2015)
6. Mark Christiansen, Adobe After Effects CC Visual Effects and Compositing Studio Techniques, Adobe Press; 1 edition (July 31, 2013)
7. Jon Gress , Visual Effects and Compositing, New Riders; 1 edition (November 1, 2014)

15U5OCAGD1
EDITING PRINCIPLES

UNIT I   Editing basics- Factors impacting editing choices- Basic shot types and its descriptions- Selecting best shots- Transitions- Stages of the editing process

UNIT II   The factors of a good edit – Information-shot composition – Camera angle continuity etc. Rough cut, master shot style- cutaways and reaction shots – Matching action, screen position, emotion and tone, overlapping – Sound effects, music transitions – Fine cutting.

UNIT III   Setting up a workstation – Networked system – SANS and NANS render farms – Audio equipment, DV Cables, connectors, Firewire and Thunderbolt – RS422- Audio interfaces etc. Organizing media-different formats, importing, ogging capturing, transcoding

UNIT IV   Introduction to software- Workflow concept – Interface, editing tools, Drag and drop, storyboard editing, three point editing – JKL Editing- Inset and overwrite editing-Trimming-ripple and rolle, slip and side effects, titles - Audio tools, effects, filters- ADR and mixing- CC

UNIT V   Mastering – Preparing a Sequence – Colour Grading – Create mix – Exporting, compressing – Archiving, DV Masters, film prints, Digital Cinema Masters

REFERENCE

1. Sergei Eisenstein, Film Form And Film Sense , Harcourt; Edition Unstated edition (March 19, 1969)

2. Robert M. Goodman, Patrick McGrath, Editing Digital Video : The Complete Creative and Technical Guide, McGraw-Hill Education TAB; 1 edition (October 1,2002)
3. Adobe Creative Team, Adobe Premiere Pro CC Classroom in a Book, Adobe Press;1 edition (July 28, 2013)

   Michael Hughes, Digital Filmmaking for Beginners A Practical Guide to Video Production, McGraw-Hill Education TAB; 1 edition (April 23, 2012

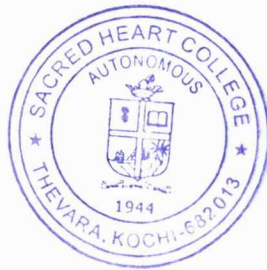**15U6PJAGD1**
ANIMATION PROJECT

Students develop an innovative body of work making use of the skills and knowledge acquired during the previous courses. This guided project culminates in a final presentation accompanied by a written component.

Working closely with the professor, students define specific production goals to explore or complete an animation project of their choosing. Emphasis is on the conceptual, aesthetic and technical processes. Students are encouraged to share their specific areas of expertise while producing individually directed projects.

15U6PJAGD2
GRAPHIC DESIGN PROJECT

All students develop an original body of work, culminating in a final presentation accompanied by a written component.   This module offers students the opportunity to develop their own design project focussing on each student's personal design vision.

Final design outcomes may range from small or large scale printed artefacts to electronic, time-based and/or interactive applications. The project work is carried out under close guidance of a faculty member.