



ANNA UNIVERSITY, CHENNAI

UNDERGRADUATE CURRICULUM (NON-AUTONOMOUS AFFILIATED INSTITUTIONS)

Programme: B. Des.

Regulations: 2025

Abbreviations:

Category

PC – Professional Core

PE – Professional Elective

BS & AE – Basic Sciences & Applied Engineering

PAE – Professional Ability Enhancement

SD – Skill Development

SL – Self Learning

HUM – Humanities (including Languages and others)

Course Type

S - Studio

T – Theory

TS – Theory cum Studio

IT – Internship Training

LIT – Laboratory Integrated Theory

TCP – Total Contact Period(s)

L – Lecture

P – Practical

T – Tutorials

S - Studio

Semester – I							
S. No.	Course Code	Course Name	Course Type	Periods / Week		Credits	Category
				L-T- P/S	TCP		
1.	BS25101	Design Appreciation through History I	T	3-0-0	3	3	PC
2.	BS25102	Principles of Design	T	3-0-0	3	3	PC
3.	AR25C01	Introduction to Language and English Skills	T	3-0-0	3	3	HUM
4.	UC25H01	தமிழர் மரபு / Heritage of Tamils	T	1-0-0	1	1	HUM
5.	BS25103	Visual Arts and Crafts - I	TS	1-0-4	5	3	PC
6.	BS25104	Geometrical Drawing I	TS	1-0-4	5	3	PC
7.	BS25105	Studio I - Basic Design Studio	S	0-0-10	10	5	PC
				Total	30	21	

Semester – II							
S. No.	Course Code	Course Name	Course Type	Periods / Week		Credits	Category
				L-T- P/S	TCP		
1.	BS25201	Design Appreciation through History II	T	3-0-0	3	3	PC
2.	BS25202	Ergonomics - Fundamentals and Advanced	T	3-0-0	3	3	PAE
3.	UC25H02	தமிழர்களும் தொழில்நுட்பமும் / Tamils and Technology	T	1-0-0	1	1	HUM
4.	BS25203	Visual Arts and Crafts - II	TS	1-0-4	5	3	PC
5.	BS25204	Geometrical Drawing II	TS	1-0-4	5	3	PC
6.	BS25205	Computer Modelling and Simulation Techniques - I	TS	1-0-4	5	3	PC
7.	BS25206	Studio II - Foundation Design Studio	S	0-0-10	10	5	PC
8.		NCC/NSS/NCC/YRC Credit Course Level 1*	-	-	-	-	-
				Total	32	21	

Semester – III							
S. No.	Course Code	Course Name	Course Type	Periods / Week		Credits	Category
				L-T- P/S	TCP		
1.		Applied Science for Interior Environments	T	3-0-0	3	3	BS & AE
2.		Product Form Design	T	3-0-0	3	3	PC
3.		Materials and Manufacturing I	T	3-0-0	3	3	BS & AE
4.		Digital illustrations	TS	1-0-4	5	3	PAE
5.		Industry Oriented Course I	-	X-X-X	-	1	SD
6.		Computer Modelling and Simulation Techniques II	S	0-0-6	6	3	PC
7.		Studio III - Space Design Studio	S	0-0-10	10	5	PC
				Total	30	21	

Semester – IV							
S. No.	Course Code	Course Name	Course Type	Periods / Week		Credits	Category
				L-T- P/S	TCP		
1.		Professional Ethics and Law	T	3-0-0	3	3	PAE
2.		Interior landscape design	T	3-0-0	3	3	PC
3.		Interior Services I	T	3-0-0	3	3	BS & AE
4.		Materials and Manufacturing II	T	3-0-0	3	3	BS & AE
5.		Design Detailing I	TS	1-0-4	5	3	PAE
6.		Studio IV - Design Studio I	S	0-0-12	12	6	PC
7.		Internship Training*	-	X-X-X	-	3	PC
				Total	29	24	
* Summer Internship Training during May/June - Focus on industry experience in an organization /office engaged in Interior Design and approved by the Department							

Semester – V							
S. No.	Course Code	Course Name	Course Type	Periods / Week		Credits	Category
				L-T- P/S	TCP		
1.		Estimation ,Costing & Economics	T	3-0-0	3	3	PC
2.		Professional Elective I	T	3-0-0	3	3	PE
3.		Design Detailing II	T	1-0-4	5	3	PAE
4.		Interior Services II	T	1-0-4	5	3	BS & AE
5.		Digital Fabrication	S	0-0-6	6	3	PAE
6.		Studio V - Design Studio II	S	0-0-12	12	6	PC
				Total	34	21	

Semester – VI							
S. No.	Course Code	Course Name	Course Type	Periods / Week		Credits	Category
				L-T- P/S	TCP		
1.		Professional Management I	T	3-0-0	3	3	PC
2.		Textile in Interior Design	T	3-0-0	3	3	BS & AE
3.		Ceramic Products and Design	T	3-0-0	3	3	PC
4.		Professional Elective II	T	3-0-0	3	3	PE
5.		Industry Oriented Course 1	-	X-X-X	-	1	SD
6.		Integrated Design Seminar	S	0-0-4	4	2	PAE
7.		Studio VI - Design Studio III	S	0-0-12	12	6	PC
8.		Internship Training*	-	X-X-X	-	3	PC
Total				28	24		
* Summer Internship Training during May/June - Focus on industry experience in an organization /office engaged in Interior Design and approved by the Department							

Semester – VII							
S. No.	Course Code	Course Name	Course Type	Periods / Week		Credits	Category
				L-T- P/S	TCP		
1.		Professional Management II	T	3-0-0	3	3	PC
2.		Public Design Research	T	3-0-0	3	3	PAE
3.		Professional Elective III	T	3-0-0	3	3	PE
4.		Professional Elective IV	T	3-0-0	3	3	PE
5.		Dissertation	S	0-0-6	6	3	PAE
6.		Studio VII - Packaging and Printing Design Studio	S	0-0-12	12	6	PC
Total				30	21		

Semester – VIII							
S. No.	Course Code	Course Name	Course Type	Periods / Week		Credits	Category
				L-T- P/S	TCP		
1.		Professional Elective V	T	3-0-0	3	3	PE
2.		Professional Elective VI	T	3-0-0	3	3	PE
3.		Project	S	0-0-20	20	10	PC
Total				26	16		

Total Credits:169

Professional Elective Courses

S. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P/S		
Professional Elective I								
1.		Visual tools and Typographic Form	PEC	3	0	0	3	3
2.		Communication Theories, Visual Perception and Semiotics	PEC	3	0	0	3	3
3.		Environmental Science	PEC	3	0	0	3	3
Professional Elective II								
1.		Craft documentation	PEC	3	0	0	3	3
2.		Design,Media and technology	PEC	3	0	0	3	3
3.		Digital Portfolio development	PEC	3	0	0	3	3
Professional Elective III								
1.		Lighting design	PEC	3	0	0	3	3
2.		Beyond the Box: Introduction to Packaging Design	PEC	3	0	0	3	3
3.		Printing Design and technology	PEC	3	0	0	3	3
Professional Elective IV								
1.		Advertising Design	PEC	3	0	0	3	3
2.		Introduction to accessibility & inclusivity design	PEC	3	0	0	3	3
3.		Brand Identity design	PEC	3	0	0	3	3
Professional Elective V								
1.		Visual Grammar for Diversity: Social design	PEC	3	0	0	3	3
2.		AI in Interior Design	PEC	3	0	0	3	3
3.		Emerging design technology-AR/VR /Immersive experiences	PEC	3	0	0	3	3
Professional Elective VI								
1.		Indian Symbology and Knowledge	PEC	3	0	0	3	3
2.		Fundamentals of User Experience Design	PEC	3	0	0	3	3
3.		Cultural forms	PEC	3	0	0	3	3

Semester I

BS25101	Design Appreciation through History – I	L 3	T 0	P/S 0	C 3
<p>Course Objectives:</p> <ul style="list-style-type: none"> • To understand the origins and development of design and art in prehistoric and early civilizations. • To explore the evolution of design and art in classical Greek and Roman civilizations. To examine classical design techniques and their influence on subsequent art and design movements. • To examine the evolution of Christian and Islamic art and design from the early to Baroque periods. • To explore the impact of the Industrial Revolution on art, design, and production. • To investigate the characteristics of Colonial and Victorian design and their historical context. 					
<p>Evolution of Design: From Prehistoric Times to River Valley Civilizations: Design and Art in the Prehistoric Era - Early tools and their design, Pottery as both a practical object and an art form, cave paintings and carvings. Art and Design in River Valley Civilizations- Sumerian Civilization- cylinder seals, relief sculptures, jewellery, and innovations in cuneiform writing, temple art and votive offerings. Ancient Egypt- amulets, scarabs, and wall art.</p>					
<p>Design in Classical Civilizations: Evolution of Greek art- sculpture, pottery, and frescoes-key artists and design techniques, the use of proportion and idealization in sculpture. Design and layout of Greek domestic spaces (Oikos) - frescoes, mosaics, and decorative elements. Common Greek furniture styles (klismos chairs, couches); materials used and craftsmanship; the role of furniture in daily life.</p> <p>Roman contributions to art - advancements in sculpture, painting, and mosaics- realism in portraiture, and historical reliefs. Interior design features, such as frescoes, mosaics, wainscots, and the integration of decorative arts; use of colour and design in domestic settings. Common Greek furniture styles (klismos chairs, couches); materials used and craftsmanship; the role of furniture in daily life.</p>					
<p>Design and Symbolism - Christianity and Islam: Christianity through early Christian - Medieval - Renaissance and Baroque period. Major symbols in Christian art-symbols used in painting, sculpture, and stained glass. The use of design elements -colour, light, and space in Christian art and decoration. Symbolic elements in altars, frescoes, and mosaics.</p> <p>Islamic Design and Symbolism- Calligraphy, geometric patterns, arabesques used in painting, architecture, and decorative arts- symmetry and abstraction in Islamic art - decorative tiles (zellij), and textiles.</p>					
<p>Impact of the Industrial Revolution on Design: Examination of Realism, Impressionism in art – Innovations in materials - mass-produced furnishings and new materials- Evolution of decorative arts including textiles and ceramics-Study of influential designers -and their contributions to design.</p>					

Evolution of Colonial and Victorian Design: Key features of Colonial architecture - symmetrical facades, use of local materials, simple forms - Typical Colonial interior design elements - furniture, textiles, colour schemes - influence of European styles and local adaptations.

Features of Victorian design - ornate details, use of new materials, eclectic styles - elaborate furniture, wallpaper patterns, colour schemes - influence of technological advancements on design.

Weightage: Continuous Internal Assessment: 40%, End Semester Examinations: 60%.

Assessment Methodology: Two Assessments with equal weightage. One Assessment as Internal written Test /Examination (50%), second as Assignment (50%) of any mode such as study, seminar, and or a combination of modes, etc.

References:

1. "The Story of Art" by E.H. Gombrich.
2. "Ancient Near Eastern Art" by Henri Frankfort.
3. "The Art of Ancient Greece" by Nigel Spivey.
4. "Daily Life in Ancient Rome" by Jérôme Carcopino.
5. "A Complete Guide to Christian Symbols" by Riojas, Edward.
6. "The Art and Architecture of Islam 1250–1800" by Sheila Blair and Jonathan Bloom.
7. "Victorian Interior Decoration: American Interiors 1830-1900" by Annette Stott.
8. "The Colonial Revival House" by Richard Guy Wilson.

E - Resources

NPTEL course – Introduction to Architecture -

https://onlinecourses.nptel.ac.in/noc23_ar01/preview

NPTEL course - Modern Indian Architecture -

https://onlinecourses.nptel.ac.in/noc25_ar15/preview

Gabriela Goldschmidt, 'Critical Design and Design Thinking vs. critical design and design thinking', in *Different Perspectives in Design Thinking*, CRC Press, 2022.

Samuel B. Frank, 'Modern Architecture since 1900, Modern Architecture and Design: An Alternative History',

Required Reading

1. "The Art of Prehistoric Man" by H. L. Schaffer.
2. "The Art of Ancient Egypt" by Gay Robins.
3. "Greek Art and Architecture" by John Griffiths Pedley.
4. "Roman Art" by Nancy H. Ramage and Andrew Ramage.
5. "Signs and Symbols in Christian Art" by George Ferguson.
6. "Islamic Art and Architecture: An Introduction" by Robert Hillenbrand.
7. "A Companion to Renaissance and Baroque Art" by Babette Bohn.
8. "Victorian Design and Decoration" by Barbara Ann McLaughlin.
9. "The Industrial Revolution and British Society" by Patrick O'Brien.
10. "Colonial Architecture and Interiors: The British Tradition" by David Watkin.

BS25102	Principles of Design	L	T	P/S	C
		3	0	0	3
Course Objectives: <ul style="list-style-type: none">To introduce students to the fundamental elements and principles of design.To understand the cultural influences on the interpretation and evolution of form.To explore basic geometric shapes and their applications in design.To analyse form and space in design.					
Introduction to Elements and Principles of Design: Primary elements of Design – line, shape, form, colour, tone, texture and space– Geometry in Design - texture, and colour – in relation to light, and pattern. Synthesis of these elements evolves understanding of basics of design - static and dynamic aspects of different compositions of design elements– order to chaos - Regularity and irregularity.					
Ordering Principles: Introduction to various ordering principles: Axis, Symmetry, Hierarchy, Rhythm, Repetition, Transformation, and Balance - symmetrical, radial, occult; harmony; unity; variety; rhythm; emphasis, - scale - proportion -- Golden Section, Le modular, Fibonacci series Renaissance Theories. Introduction to Gestalt Principles. Figure and ground, positive and negative spaces.					
Form and Space: Form and Space, Basic Forms, Transformation of Forms, Formal Collisions of Geometry, Defining Space, Spatial Organization, Spatial Relationships, and Circulation.					
Concept of Geometry and Visual Composition: Introduction to different 3-D forms and primitive forms, shapes - characteristic features and their behaviour - understanding the behaviour when combined. Transformation of 2-D to 3-D - process - principles - types - Composition - types - Principles of composition using grids, symmetrical/ asymmetrical, Rule of Thirds, Centre of Interest, Gestalt's Theory of Visual Composition.					
Colour Theory: Introduction colour theory - spectrum of colours - application - concept - Colour wheel – primary, secondary, tertiary colours, colour wheel, colour schemes colour value, intensity, and modification of colour hues – tints, shades, neutralization. Colour chart types, making and using. colour harmony, use of colour harmony. The psychological impact of colour – warm, cool and neutral colours, impact of specific hues, meanings of colour, colour and form, colour and light, colour and surface qualities, colour and distances and scales.					
Weightage: Continuous Internal Assessment: 40%, End Semester Examinations: 60%.					
Assessment Methodology: Two Assessments with equal weightage. One Assessment as Internal written Test /Examination (50%), second as Assignment (50%) of any mode such as study, seminar, and or a combination of modes, etc.					

Required Reading

1. Johannes Itten, "The Art of Color: The Subjective Experience and Objective Rationale of Color," John Wiley & Sons, 1997.
2. Wucius Wong, "Principles of Form and Design," John Wiley & Sons, 1993.
3. Rudolf Arnheim, "Art and Visual Perception: A Psychology of the Creative Eye," University of California Press, 1974.
4. Hugh Honour and John Fleming, "A World History of Art," Laurence King Publishing, 2009.
5. Ernst Gombrich, "The Story of Art," Phaidon Press, 1995.
6. Kimberly Elam, "Geometry of Design: Studies in Proportion and Composition," Princeton Architectural Press, 2001.
7. Jay Hambidge, "The Elements of Dynamic Symmetry," Dover Publications, 2005.
8. Francis D. K. Ching, "Architecture: Form, Space, and Order," John Wiley & Sons, 2014.
9. Simon Unwin, "Analysing Architecture," Routledge, 2014.
10. Robert McCarter, "Louis I. Kahn," Phaidon Press, 2005.
11. Gail Peter Borden, "Material Precedent: The Typology of Modern Tectonics," John Wiley & Sons, 2010.
12. Peter Zumthor, "Atmospheres: Architectural Environments - Surrounding Objects," Birkhäuser, 2006.

References

1. Pevsner, N. (1963). An outline of European architecture. Pelican Books.
2. Livio, M. (2003). The golden ratio: The story of phi, the world's most astonishing number. Broadway Books.
3. Pile, J. F. (2014). Interior design. Pearson.

AR25C01	Introduction to Language and English Skills	L	T	P/S	C
		3	0	0	3
Course Objectives: <ul style="list-style-type: none">• To give an introduction to the concepts and evolution of language in human society including its various expressions and functions• To give basic skills of English language in everyday situations involving speaking, listening, reading, writing, presenting.• To enable the use of language to think, express experience and communicate larger meaning.					
Introduction to Language and Linguistics: Communication in humans and animals. Language in humans– definition, function and hypotheses of evolution. Some concepts of language- Phonetics, Phonology, Morphology, Syntax, Semantics, Pragmatics.					
English- Speaking and Listening: Everyday communication and human interaction through language. Speaking and listening. Simple class exercises.					
English-Reading, Writing, Presenting: Reading and writing. Language comprehension skills through reading and writing. Presenting information and ideas. Simple exercises.					
Language as Expression and Cognition: Language as expression – poetry, prose, literature, etc., Cognitive function of language. Cognitive role of language in constructing reality, abstracting, and projecting the future. Simple exercises.					
Language as Discourse: Thinking, talking and writing about ideas and situations within a social context and conveying broader meaning and abstraction. Discourse, dialectic. Simple class exercises.					
Weightage: Continuous Internal Assessment: 40%, End Semester Examinations: 60%.					
Assessment Methodology: Two Assessments with equal weightage. One Assessment as Internal written Test /Examination (50%), second as Assignment (50%) of any mode such as study, seminar, and or a combination of modes, etc.					
Required Reading <ol style="list-style-type: none">1. Sharon Hendenreich, ‘English for Architects and Civil Engineers’, Springer, 20142. www.cambridgescholars.com3. www.robertdwatkins.com/Englishworkbook.pdf4. N. Chomsky, ‘Reflections on Language’, Fontana, 1975.5. Steve Pinker, ‘The Language Instinct’, Penguin, 2015.6. R.L. Trask, ‘Language and Linguistics: The Key Concepts’, Routledge, 2007.7. R.L. Trask, ‘Language: The Basics’, Routledge 1999					
References <ol style="list-style-type: none">1. Mounsey, C. (2005). Essays and dissertation. Oxford University Press.2. Greenbaum, S. (2005). The Oxford English grammar. Oxford University Press.3. Mohan, K., & Banerji, M. (2009). Developing communication skills. Laxmi Publications.					

UC25H01	தமிழர் மரபு	L 1	T 0	P 0	C 1
<p>மொழி மற்றும் இலக்கியம்: இந்திய மொழிக் குடும்பங்கள், திராவிட மொழிகள், தமிழ் ஒரு செம்மொழி, தமிழ் செவ்விலக்கியங்கள், சங்க இலக்கியத்தின் சமயச் சார்பற்ற தன்மை, சங்க இலக்கியத்தில் பகிர்தல் அறம், திருக்குறளில் மேலாண்மைக் கருத்துக்கள், தமிழ்க் காப்பியங்கள், தமிழகத்தில் சமண பௌத்த சமயங்களின் தாக்கம், பக்தி இலக்கியம், ஆழ்வார்கள் மற்றும் நாயன்மார்கள், சிற்றிலக்கியங்கள், தமிழில் நவீன இலக்கியத்தின் வளர்ச்சி, தமிழ் இலக்கிய வளர்ச்சியில் பாரதியார் மற்றும் பாரதிதாசன் ஆகியோரின் பங்களிப்பு.</p>					
<p>மரபு – பாறை ஓவியங்கள் முதல் நவீன ஓவியங்கள் வரை – சிற்பக் கலை: நடுகல் முதல் நவீன சிற்பங்கள் வரை, ஐம்பொன் சிலைகள், பழங்குடியினர் மற்றும் அவர்கள் தயாரிக்கும் கைவினைப் பொருட்கள், பொம்மைகள் , தேர் செய்யும் கலை, சுடுமண் சிற்பங்கள், நாட்டுப்புறத் தெய்வங்கள், குமரிமுனையில் திருவள்ளுவர் சிலை, இசைக் கருவிகள், மிருதங்கம், பறை, வீணை, யாழ், நாதஸ்வரம், தமிழர்களின் சமூக பொருளாதார வாழ்வில் கோவில்களின் பங்கு.</p>					
<p>நாட்டுப்புறக் கலைகள் மற்றும் வீர விளையாட்டுகள்: தெருக்கூத்து, கரகாட்டம், வில்லுப்பாட்டு, கணியான் கூத்து, ஓயிலாட்டம், தோல்பாவைக் கூத்து, சிலம்பாட்டம், வளரி, புலியாட்டம், தமிழர்களின் விளையாட்டுகள்.</p>					
<p>தமிழர்களின் திணைக் கோட்பாடுகள்: தமிழகத்தின் தாவரங்களும், விலங்குகளும், தொல்காப்பியம் மற்றும் சங்க இலக்கியத்தில் அகம் மற்றும் புறக் கோட்பாடுகள், தமிழர்கள் போற்றிய அறக்கோட்பாடு, சங்ககாலத்தில் தமிழகத்தில் எழுத்தறிவும், கல்வியும், சங்ககால நகரங்களும் துறை முகங்களும், சங்ககாலத்தில் ஏற்றுமதி மற்றும் இறக்குமதி, கடல்கடந்த நாடுகளில் சோழர்களின் வெற்றி.</p>					
<p>இந்திய தேசிய இயக்கம் மற்றும் இந்திய பண்பாட்டிற்குத் தமிழர்களின் பங்களிப்பு: இந்திய விடுதலைப்போரில் தமிழர்களின் பங்கு, இந்தியாவின் பிறப்பகுதிகளில் தமிழ்ப் பண்பாட்டின் தாக்கம் , சுயமரியாதை இயக்கம் இந்திய மருத்துவத்தில், சித்த மருத்துவத்தின் பங்கு, கல்வெட்டுகள், கையெழுத்துப்படிகள், தமிழ்ப் புத்தகங்களின் அச்ச வரலாறு.</p>					
<p>References:</p> <ol style="list-style-type: none"> 1. தமிழக வரலாறு, மக்களும் பண்பாடும், கே.கே. பிள்ளை (வெளியீடு: தமிழ்நாடு பாடநூல் மற்றும் கல்வியியல் பணிகள் கழகம்). 2. கணினித் தமிழ், முனைவர் இல. சுந்தரம். (விகடன் பிரசுரம்). 3. கீழடி, வைகை நதிக்கரையில் சங்ககால நகர நாகரிகம் (தொல்லியல் துறை வெளியீடு) 4. பொருறை, ஆற்றங்கரை நாகரிகம். (தொல்லியல் துறை வெளியீடு) 5. Social Life of Tamils (Dr.K.K.Pillay) A joint publication of TNTB & ESC and RMRL – (in print) 6. Social Life of the Tamils - The Classical Period (Dr.S.Singaravelu) (Published by: International Institute of Tamil Studies). 7. Historical Heritage of the Tamils (Dr.S.V.Subatamanian, Dr.K.D. Thirunavukkarasu) (Published by: International Institute of Tamil Studies). 8. The Contributions of the Tamils to Indian Culture (Dr.M.Valarmathi) (Published by: International Institute of Tamil Studies.) 9. Keeladi - 'Sangam City Civilization on the banks of river Vaigai' (Jointly Published by: Department of Archaeology & Tamil Nadu Text Book and Educational Services Corporation, Tamil Nadu) 10. Studies in the History of India with Special Reference to Tamil Nadu (Dr.K.K.Pillay) (Published by: The Author) 11. Porunai Civilization (Jointly Published by: Department of Archaeology & Tamil Nadu Text Book and Educational Services Corporation, Tamil Nadu) 12. Journey of Civilization Indus to Vaigai (R.Balakrishnan) (Published by: RMRL) – Reference Book. 					

UC25H01	Heritage of Tamils	L	T	P	C
		1	0	0	1

Language and Literature: Language Families in India, Dravidian Languages, Tamil as a Classical Language, Classical Literature in Tamil, Secular Nature of Sangam Literature, Distributive Justice in Sangam Literature, Management Principles in Thirukural, Tamil Epics and Impact of Buddhism & Jainism in Tamil Land, Bakthi Literature Azhwars and Nayanmars, Forms of minor Poetry - Development of Modern literature in Tamil - Contribution of Bharathiyar and Bharathidhasan.

Heritage - Rock Art Paintings to Modern Art – Sculpture: Hero stone to modern sculpture, Bronze icons, Tribes and their handicrafts, Art of temple car making, Massive Terracotta sculptures, Village deities, Thiruvalluvar Statue at Kanyakumari, Making of musical instruments, Mridhangam, Parai, Veenai, Yazh and Nadhaswaram, Role of Temples in Social and Economic Life of Tamils.

Folk and Martial Arts: Therukoothu, Karagattam, Villu Pattu, Kaniyan Koothu, Oyillattam, Leather puppetry, Silambattam, Valari, Tiger dance, Sports and Games of Tamils.

Thinai Concept of Tamils: Flora and Fauna of Tamils & Aham and Puram Concept from Tholkappiyam and Sangam Literature, Aram Concept of Tamils, Education and Literacy during Sangam Age, Ancient Cities and Ports of Sangam Age, Export and Import during Sangam Age, Overseas Conquest of Cholas.

Contribution of Tamils to Indian National Movement and Indian Culture:
Contribution of Tamils to Indian Freedom Struggle, The Cultural Influence of Tamils over the other parts of India, Self-Respect Movement, Role of Siddha Medicine in Indigenous Systems of Medicine, Inscriptions & Manuscripts, Print History of Tamil Books

References:

1. தமிழக வரலாறு, மக்களும் பண்பாடும், கே.கே. பிள்ளை (வெளியீடு: தமிழ்நாடு பாடநூல் மற்றும், கல்வியியல் பணிகள் கழகம்).
2. கணினித் தமிழ், முனைவர் இல. சுந்தரம். (விகடன் பிரசுரம்).
3. கீழடி, வைகை நதிக்கரையில் சங்ககால நகர நாகரிகம் (தொல்லியல் துறை வெளியீடு)
4. பொருறை, ஆற்றங்கரை நாகரிகம். (தொல்லியல் துறை வெளியீடு)
5. Social Life of Tamils (Dr.K.K.Pillay) A joint publication of TNTB & ESC and RMRL – (in print)
6. Social Life of the Tamils, The Classical Period (Dr.S.Singaravelu) (Published by: International Institute of Tamil Studies).
7. Historical Heritage of the Tamils (Dr.S.V.Subatamanian, Dr.K.D. Thirunavukkarasu) (Published by: International Institute of Tamil Studies).
8. The Contributions of the Tamils to Indian Culture (Dr.M.Valarmathi) (Published by: International Institute of Tamil Studies.)
9. Keeladi, 'Sangam City Civilization on the banks of river Vaigai' (Jointly Published by: Department of Archaeology & Tamil Nadu Text Book and Educational Services Corporation, Tamil Nadu)
10. Studies in the History of India with Special Reference to Tamil Nadu (Dr.K.K.Pillay) (Published by: The Author)
11. Porunai Civilization (Jointly Published by: Department of Archaeology & Tamil Nadu Text Book and Educational Services Corporation, Tamil Nadu)
12. Journey of Civilization Indus to Vaigai (R.Balakrishnan) (Published by: RMRL), Reference Book.

BS25103	Visual Arts and Crafts – I	L	T	P	C
		1	0	4	3
Course Objectives: <ul style="list-style-type: none">• To understand how to use different mediums to represent ideas on paper.• To give an introduction to the discipline of visual art and its various facets.• To introduce the importance of art and its relation to design through study and hands-on work of techniques and mediums of Art.• To introduce the vocabulary of Visual Arts in terms of elements and principles in application.• To explore the historical and cultural contexts of notable Indian art forms and their transformation over time.• To explore the rich tradition and diversity of Indian crafts across different regions and historical periods.					
Introduction to Freehand Sketching: Exercises include freehand drawing and sketching studies - Exploring Line, Shape, Tone, Texture and Depth. Quality of line, Drawing shapes in proportion, Composition of shapes, Contour Drawing, Still Life Drawing, Line Studies. Basics of drawing one-point and two-point perspectives. Construct basic to complex 3d platonic forms using the freehand method. Value Studies.					
Introduction to art Mediums: Explore different mediums for sketching - Pencil, Ball pen, Ink pen, Charcoal sticks, brush pen etc. Explore different mediums and their techniques for artwork - oil and dry Pastels, Poster colours, Watercolours, Oil colours, Glass colours, Fabric colours etc.					
Major Art Movements and Their Influence: Characteristics & Influence – Renaissance-Baroque – Romanticism- Impressionism- Cubism – Surrealism - Pop Art- Contemporary Art.					
Introduction to Arts – India: Outline the characteristics of exemplary arts in India across the ages, including living folk traditions. Case studies- Madhubani, Miniature Painting Warli, Tanjore, Pattachitra, Kalamkari. Phad, Kalighat, Gond, Cheriya Scrolls, Pichwai, Kerala Mural, and Bhil. Decoding systems and Exercises in understanding historical aspects of the art sector, transformation through Time including works of contemporary artists- M.F. Husain, Tyeb Mehta, and S.H. Raza. Digital and Experimental Art- contemporary practices using new media, technology, and experimental methods to reflect current trends.					
Weightage: Continuous Internal Assessment: 50%, End Semester Examinations: 50%.					
Assessment Methodology: Three Assessments with equal weightage. One Assessment as Internal written Test /Examination (approx.33.33%), other two Assignments (approx.33.33% each) incorporate continuous marking of the work and performance during the particular assessment period such as drawings, models, study, seminar, etc.					

Required Reading

1. Bert Dodson, "Keys to Drawing," North Light Books, 1990.
2. Betty Edwards, "The New Drawing on the Right Side of the Brain," Tarcher, 1999.
3. Arthur L. Guphill, "Rendering in Pen and Ink," Watson-Guphill, 1997.
4. Bert Dodson, "Keys to Drawing with Imagination," North Light Books, 2006.
5. Rudolf Arnheim, "Art and Visual Perception: A Psychology of the Creative Eye," University of California Press, 1974.
6. Stephen Palmer, "Vision Science: Photons to Phenomenology," MIT Press, 1999.
7. Josef Albers, "Interaction of Color," Yale University Press, 1971.
8. Johannes Itten, "The Art of Color," John Wiley & Sons, 1974.
9. Carol Wax, "The Mezzotint: History and Technique," Abrams, 1990.
10. Adolf Dehn, "Water Color Painting," Studio Publications, 1950.

References

1. Gascoigne, B. (2004). How to identify prints: A complete guide to manual and mechanical processes from woodcut to ink jet. Thames & Hudson.
2. Greenbaum, S. (2005). The Oxford English grammar. Oxford University Press.
3. Ivins, W. M., Jr. (1969). Prints and visual communication. MIT Press.
4. Livio, M. (2003). The golden ratio: The story of phi, the world's most astonishing number. Broadway Books.
5. Merleau-Ponty, M. (2012). Phenomenology of perception. Routledge.
6. Mohan, K., & Banerji, M. (2009). Developing communication skills. Laxmi Publications.
7. Mollica, P. (2013). Color theory: An essential guide to color. Walter Foster Publishing.
8. Mounsey, C. (2005). Essays and dissertation. Oxford University Press.
9. Nicolaidis, K. (1990). The natural way to draw: A working plan for art study. Houghton Mifflin Harcourt.
10. Oliver, R. S. (1995). Perspective drawing: A step-by-step handbook. Dover Publications.
11. Pevsner, N. (1963). An outline of European architecture. Pelican Books.
12. Pile, J. F. (2014). Interior design. Pearson.
13. Powell, W. F. (2005). Color mixing recipes for portraits. Walter Foster.
14. Smith, R. (2009). The artist's handbook. DK Publishing.
15. Wilcox, M. (2001). Blue and yellow don't make green. School of Color Publishing.
16. Zakia, R., & Madsen, P. (2012). Perception and imaging: Photography as a way of seeing. Focal Press.

BS25104	Geometrical Drawing - I	L	T	P	C
		1	0	4	3
Course Objectives: <ul style="list-style-type: none">To develop an understanding of Geometrical Drawing.To master drawing the Geometric Shapes and Surfaces.To enable students to construct physical planar models of geometric shapes and surfaces.To familiarize students with the terminology and methods of orthographic, isometric, axonometric, and perspective projections.					
Introduction to Drawing: Introduction and setting to the drawing equipment, Concept of line, its types, Line thickness quality, grade, divisions and angles, polygons, circles, geometrical curves, helix etc., Concept of Dimensioning & dimension line. Freehand and Architectural lettering, proportion of letter size as per scale and size of the sheet. Scales- Types of scales: Plain scale and Diagonal scale. Introduction to point, line, plane. Definition of geometrical drawing. Drawing lines and angles Drawing shapes/ planar surfaces - triangle, square, rhombus, rectangle, polygon, hexagon, etc. Drawing of circles, tangents, curves, and conic sections (hyperbola, parabola, ellipse).					
Geometrical Construction: Solids - cube, cuboids, cylinders, prisms, pyramids, spheres, cones- Sections of solids - The true shape of solids. - Plan, elevation, and section of simple solids.					
Introduction to Axonometric Projections: Isometric and Axonometric projection of planes, solids and combinations of solids etc. Isometric and Axonometric projection of simple objects. Study of concepts, types and terminologies such as picture plane, station point, vanishing point, eye level, ground level, Horizon etc.					
Measured Drawing: Introduction to fundamentals of measured drawing, line value, lettering, drawing representation, format for presentation methods and technique of measuring buildings and their details. Measured drawings of simple objects like furniture, detailing in terms of construction, ornamentation, measured drawings of building components like columns, doors, windows, cornices, etc.					
Weightage: Continuous Internal Assessment: 50%, End Semester Examinations: 50%.					
Assessment Methodology: Three Assessments with equal weightage. One Assessment as Internal written Test /Examination (approx.33.33%), other two Assignments (approx.33.33% each) incorporate continuous marking of the work and performance during the particular assessment period such as drawings, models, study, seminar, etc.					

Required Reading

1. Robert S. Oliver, "Perspective Drawing: A Step-by-Step Handbook," Dover Publications, 1995.
2. Francis D. K. Ching, "Architectural Graphics," John Wiley & Sons, 2015.
3. David H. Ross, "Freehand Figure Drawing for Illustrators," Watson-Guptill, 2015.
4. Paul Laseau, "Freehand Sketching: An Introduction," W. W. Norton & Company, 2000.
5. Matthew Frederick, "101 Things I Learned in Architecture School," MIT Press, 2007.
6. Peter Stanyer, "The Complete Book of Drawing Techniques," Arcturus Publishing, 2012.
7. Francis D. K. Ching, "Design Drawing," John Wiley & Sons, 2010.
8. Keith H. Cullum, "Perspective Drawing," McGraw-Hill, 1989.
9. John Raynes, "The Complete Guide to Perspective Drawing: From One-Point to Six-Point," North Light Books, 2005.
10. Ernest R. Norling, "Perspective Made Easy," Dover Publications, 1999.

References

1. Ivor H. Seeley, "Building Quantities Explained," Macmillan, 1993.
2. John Montague, "Basic Perspective Drawing: A Visual Approach," John Wiley & Sons, 2012.
3. James Richards, "Freehand Drawing and Discovery," John Wiley & Sons, 2013.
4. Michael E. Doyle, "Color Drawing: Design Drawing Skills and Techniques for Architects, Landscape Architects, and Interior Designers," John Wiley & Sons, 2011.
5. Charles B. Wiest, "The Art of Perspective Drawing," McGraw-Hill, 2004.

BS25105	Studio I – Basic Design Studio	L	T	P	C
		0	0	10	5
Course Objectives: <ul style="list-style-type: none">• To give an understanding of design as creating form towards a purpose at various scales.• To enable exploration of the universal visual, experiential and cognitive aspects of design through engaging elements and principles of form.• To give an insight into the ways in which form/ morphology and use/effect can come together.					
<p>Architecture as a discipline starts with morphology as the answer to questions and needs of human society. While the needs are multifarious, including shelter and comfort, social and psychological well-being, culture and meaning, expression of time and context, etc., the means are negotiated through the fundamentals of form in its various attributes. In the foundational studio, the exploration would be on understanding these fundamentals as universals as well as in terms of particular manifestations in specific cultural and temporal contexts. The word form here means all physical manifested aspects.</p> <p>The explorations in the foundational studio would be of two types. One would be to understand and break down form to its component elements and principles in order to get insight into the most important aspects that give a totality of cognitive effect (perceptive, behavioural, cultural etc.,) or use (anthropometrics, activities, scale, etc.,).Design exploration would continue after this to create a form for use/effect. Another would be to explore component elements like point, line, planes, volume, shape, colour, texture light, pattern, etc., using principles such as balance, unity, dominance, transparency, proportion, scale, solid, void, fluidity, movement, fractal, order, chaos, gestalt, etc., This exploration could be an end in itself or could lead to the creation of a higher level of or composite form/design through using elements and principles in conjunction towards human need/ use (perceptive, behavioural, cultural, anthropometrics, activities, scale, etc.,).</p> <p>The whole studio would be conducted through a series of related design exercises with multiple stages as well as standalone independent exercises. Observational/ analytical study and design exploration could go hand in hand or one could precede the other, based on the specific project. The exercises would be mediated through situations and contexts, historic and contemporary references, local or global character, aesthetics, basics of human response and behaviour, etc., Different media would be explored in 2D and 3D. The final exercise(s) would be focussed towards small product/ furniture/ architectural design/ component design in urban context, etc.,</p>					
Weightage: Continuous Internal Assessment: 50%, End Semester Examinations: 50%.					
Assessment Methodology: : Three Assessments with equal weightage (approx.33.33% each).					
Each assessment shall incorporate continuous marking of the work and performance during the particular assessment period.					

Required Reading

1. Kumar Vyas, 'Design and Environment- A Primer', National Institute of Design, 2009.
2. Pierre von Meiss, 'Elements of Architecture: From Form to Place', Routledge, 2014.
3. James F. Eckler, 'Language of Space and Form: Generative Terms for Architecture', Wiley, 2012.
4. Owen Cappleman and Michael Jack Jordon, 'Foundations in Architecture: An Annotated Anthology of Beginning Design Project', Van Nostrand Reinhold New York, 1993.
5. Charles Wallschlagger and Cynthia Busic-Snyder, 'Basic Visual Concepts and Principles for Artists, Architects and Designers', McGraw Hill, New York 1992.
6. Victor Papanek, 'Design for the Real world, Human Ecology and Social Change', Chicago Review Press, 2005.

References

1. Ching, F. D. K. (1979). Architecture: Form space and order. Van Nostrand Reinhold Co.
2. Miyasaka, T. (2013). Seeing and making in architecture: Design exercises. *Routledge*.
3. Pramod, V. S. (1997). Design fundamentals in architecture. Somaiya Publications.

Semester II

BS25201	Design Appreciation through History – II	L	T	P	C
		3	0	0	3
Course Objectives: <ul style="list-style-type: none">• Explore the key symbols and motifs in Hindu, Buddhist, Jain, and Islamic art and design, and their cultural significance across regions.• Investigate the relationship between religious beliefs and architectural styles in historical and contemporary contexts.• Evaluate the effects of colonialism on Indian art, design, and vernacular traditions, highlighting resistance and adaptation.• Identify the characteristics and cultural influences of vernacular architecture in India and their relevance in modern design.• Assess the emergence of modernism in design, its principles, and its interaction with traditional practices across various cultures.					
Design and Symbolism – Hindu, Buddhist and Jain Culture: Hindu Art and Symbolism - Overview of paintings like Madhubani, Warli, sculptures, and textiles. Key Symbols - Analysis of symbols such as the Om, lotus, and trident. Understanding the visual representation of gods and goddesses. Buddhist Art and Symbolism- Thangka paintings, sculptures, and mandalas. The significance of the lotus, wheel, and bodhi tree. Various mudras and their meanings. Cross-Cultural Analysis: Similarities and differences in symbols across the three traditions. Exploration of recurring designs and their interpretations.					
Design and Symbolism – Buddhist and Islam in Southeast And Far East Regions: Buddhist Arts and Symbolism in Southeast Asia - Focus on Thailand, Indonesia, and Cambodia Overview of sculptures, paintings, and textiles. The lotus, dharma wheel, and Bodhisattvas. Buddhist Arts and Symbolism in Far East Asia - Focus on China, Korea and Japan- Thangka paintings, Zen ink wash, and sculptures. Exploration of the Buddha's iconography and mudras. Islamic Art and Symbolism in Southeast Asia - Influence of local traditions on Islamic artistic expressions in countries like Indonesia and Malaysia - Calligraphy, textiles, and ceramics. Geometric patterns, arabesques, and floral designs. Far East Asia - Miniature paintings and textiles. Understanding the significance of patterns and colour use. Influence of Persian and Central Asian styles in Chinese Islamic art. Traditional methods, such as silk painting and natural pigments. Carving and modelling methods in both traditions. Textile Arts: Exploration of weaving, dyeing, and embroidery techniques					

Colonialism in India: Pre-Colonial Art Forms - Overview of major Indian art forms before colonialism like Mughal, Rajput, and Pahari. Characteristics of traditional Indian painting, sculpture, and crafts. Early Colonial Influences - Arrival of European artists and the introduction of Western styles and impact of the British East India Company on local art practices - Case studies of early colonial art - company paintings.

The British Raj and Artistic Transformation – Introduction of New Mediums – Photography, Printmaking. The establishment of art schools and their influence on Indian artists- The Bengal School- Influence of the British aesthetic on Indian textiles and decorative arts. Progressive Artists' Group- Formation and Goals- Prominent artists like F.N. Souza, M.F. Husain, and S.H. Raza- Themes and Techniques- focus on themes of nationalism, identity, and human experience, reflecting the complexities of post-colonial society.

Vernacular Traditions in India: Cultural and context of Vernacular traditions in India – Building and materiality of Art & Crafts in vernacular architecture like Rajasthan Havelis - Bhunga Houses – Bohra Housing – Chettinad Houses – Nalukettu Houses & Mansions in Bengal.

Modernism in Design: Introduction to Modernism- Key characteristics and history. Key Movements in Modern Art. Fauvism, Cubism, and Expressionism-Works of Artists: Matisse, Picasso, Kandinsky. The Bauhaus Movement-Origins and Principles. Key figures: Gropius, Moholy-Nagy. Graphic Design in Modernism-Evolution of typography and layout. Key designers- El Lissitzky, Paul Rand. Modern Art Movements-Surrealism and Dadaism-Key artists Dalí, Duchamp- Critique of Modernism- Introduction to Postmodernism. Discussion on Modernism's legacy.

Weightage: Continuous Internal Assessment: 40%, End Semester Examinations: 60%.

Assessment Methodology: Two Assessments with equal weightage.

One Assessment as Internal written Test /Examination (50%), second as Assignment (50%) of any mode such as study, seminar, and or a combination of modes, etc.

Required Reading

1. Hindu Art and Architecture by S. P. Gupta
2. Buddhist Art and Architecture by David Snellgrove
3. Islamic Art: A Very Short Introduction by Stefano Carboni
4. Buddhism and Islamic Art: A Cultural History by John Guy
5. Colonialism in India: A History by G. B. Singh
6. The Discovery of India by Jawaharlal Nehru
7. Vernacular Architecture in India by K. K. Shukla
8. Indian Vernacular Architecture: The Regional and Cultural Context by G. K. Chellappa
9. Modernism: A Very Short Introduction by Christopher Butler
10. Designing Modern India by K. P. R. Krishna

References:

1. The Art of Indian Asia: Its Mythology and Transformations by Joseph Needham
2. Jain Art and Architecture by Kumkum Sangari
3. Art and Architecture of the Islamic World by Robert Hillenbrand
4. Buddhist Art in Asia by John Guy
5. The Invention of Tradition by Eric Hobsbawm and Terence Ranger
6. India: A History by John Keay
7. The Architecture of the Indian Subcontinent by Donald Leslie
8. Traditional Indian Architecture: Space and Place by V. K. Jain □ Design as Art by Bruno Munari
9. The International Style: Architecture Since 1922 by Henry-Russell Hitchcock and Philip Johnson

BS25202	Ergonomics – Fundamentals and Advanced	L	T	P	C
		3	0	0	3
Course Objectives: <ul style="list-style-type: none">Understand key concepts and terminology in ergonomics.Analyze ergonomic challenges in various settings.Apply ergonomic principles to design solutions.					
Ergonomics, Human Factors and Anthropometry: Definition, scope, and importance of ergonomics in various fields - Human capabilities, limitations, and the role of anthropometry in ergonomic design. Hands-on activity measuring anthropometric data.					
Ergonomics – Cognitive, Physical and Environmental: Mental workload, cognitive processing, and designing for user experience. Analyse case studies focusing on cognitive load. Body mechanics, posture analysis, and the impact of physical ergonomics on health. Design considerations for lighting, noise, temperature, and their effects on performance.					
Ergonomics for Special Populations: Designing for diversity, including age, disability, and cultural considerations. Designing for Women and Men - Designing for Pregnant Women - Designing for the Aging - Designing for Disabled Individuals - Designing for Overweight/Obese Workers - Designing for Patients and Healthcare Providers.					
Design Principles for Workstations & Advanced Ergonomics in Technology: Best practices in spaces - workstation, kitchen, and bathroom design; understanding user-centred design principles- Exercises to redesign existing spaces. The impact of emerging technologies on ergonomics, including VR and AR applications.					
Product Design and Future Trends in Ergonomics: Principles of ergonomic product development; Modern approach to design and analyse the flaws - chairs and furniture. Case studies - chair designed by Hans Wegner, Verner Panton, Ludwig Mies van der Rohe, Warren Platner, Le Corbusier, Thonet, Eero Saarinen, Arne Jacobsen, Marcel Breuer, Eileen Gray & Charles & Ray Eames. Japanese approach to design - Pod hotels. Emerging trends, sustainable practices, and the future of ergonomic design.					
Weightage: Continuous Internal Assessment: 40%, End Semester Examinations: 60%.					
Assessment Methodology: Two Assessments with equal weightage. One Assessment as Internal written Test /Examination (50%), second as Assignment (50%) of any mode such as study, seminar, and or a combination of modes, etc.					
Required Reading <ol style="list-style-type: none">Introduction to Ergonomics by Robert BridgerErgonomics - How to design for ease and efficiency by Katrin E. Kroemer Elbert, Henrike B. Kroemer Anne D. Kroemer HoffmanDesign for Ergonomics by Francesca TosiCognitive Ergonomics: The Design of Human-Computer Interaction by Andrew D. Hollands and D. J. M. K. van der Voordt					

5. Designing the User Experience: Patterns for Effective Interaction Design by David R. Benyon
6. Workstation Design: A Guide to Ergonomics by Michael L. Smith
7. Inclusive Design: Design for the Whole Population by P. A. Langdon, J. Clarkson, and P. Robinson

References

1. Human Factors in Engineering and Design by Mark S. Sanders and Ernest J. McCormick
2. Anthropometry and Biomechanics in Ergonomics by Paul A. T. H. Alphan
3. The Psychology of Human-Computer Interaction by Stuart K. Card, Thomas P. Moran, and Allen Newell
4. Environmental Ergonomics: A Review of the Literature by Peter M. D. Smith
5. Ergonomics for Special Populations by Janis L. McCarthy

UC25H02	தமிழர்களும் தொழில்நுட்பமும்	L 1	T 0	P 0	C 1
<p>நெசவு மற்றும் பானைத் தொழில்நுட்பம்: சங்க காலத்தில் நெசவுத் தொழில், பானைத் தொழில்நுட்பம், கருப்பு சிவப்பு பாண்டங்கள், பாண்டங்களில் கீறல் குறியீடுகள்.</p>					
<p>வடிவமைப்பு மற்றும் கட்டிடத் தொழில்நுட்பம்: சங்க காலத்தில் வடிவமைப்பு மற்றும் கட்டுமானங்கள் & சங்க காலத்தில் வீட்டுப் பொருட்களில் வடிவமைப்பு, சங்க காலத்தில் கட்டுமான பொருட்களும் நடுகல்லும் – சிலப்பதிகாரத்தில் மேடை அமைப்பு பற்றிய விவரங்கள், மாமல்லபுரம் சிற்பங்களும், கோவில்களும், சோழர் காலத்துப் பெருங்கோயில்கள் மற்றும் பிற வழிபாட்டுத் தலங்கள் – நாயக்கர் காலக் கோயில்கள், மாதிரி கட்டமைப்புகள் பற்றி அறிதல், மதுரை மீனாட்சி அம்மன் ஆலயம் மற்றும் திருமலை நாயக்கர் மஹால் – செட்டிநாட்டு வீடுகள், பிரிட்டிஷ் காலத்தில் சென்னையில் இந்தோ, சாரோசெனிக் கட்டிடக் கலை.</p>					
<p>உற்பத்தித் தொழில் நுட்பம்: கப்பல் கட்டும் கலை, உலோகவியல், இரும்புத் தொழிற்சாலை, இரும்பை உருக்குதல், எஃகு, வரலாற்றுச் சான்றுகளாக செம்பு மற்றும் தங்க நாணயங்கள், நாணயங்கள் அச்சடித்தல், மணி உருவாக்கும் தொழிற்சாலைகள், கல்மணிகள், கண்ணாடி மணிகள், சுடுமண் மணிகள், சங்கு மணிகள், எலும்புத்துண்டுகள், தொல்லியல் சான்றுகள், சிலப்பதிகாரத்தில் மணிகளின் வகைகள்.</p>					
<p>வேளாண்மை மற்றும் நீர்ப்பாசனத் தொழில் நுட்பம்: அணை, ஏரி, குளங்கள், மதகு, சோழர்காலக் குழித் தூம்பின் முக்கியத்துவம், கால்நடை பராமரிப்பு, கால்நடைகளுக்காக வடிவமைக்கப்பட்ட கிணறுகள், வேளாண்மை மற்றும் வேளாண்மைச் சார்ந்த செயல்பாடுகள், கடல்சார் அறிவு, மீன்வளம், முத்து மற்றும் முத்துக்குளித்தல், பெருங்கடல் குறித்த பண்டைய அறிவு, அறிவுசார் சமூகம்.</p>					
<p>அறிவியல் தமிழ் மற்றும் கணித்தமிழ்: அறிவியல் தமிழின் வளர்ச்சி, கணித்தமிழ் வளர்ச்சி, தமிழ் நூல்களை மின்பதிப்பு செய்தல், தமிழ் மென்பொருட்கள் உருவாக்கம், தமிழ் இணையக் கல்விக்கழகம், தமிழ் மின் நூலகம், இணையத்தில் தமிழ் அகராதிகள், சொற்குவைத் திட்டம்.</p>					
<p>References</p> <ol style="list-style-type: none"> 1. தமிழக வரலாறு, மக்களும் பண்பாடும், கே.கே. பிள்ளை (வெளியீடு: தமிழ்நாடு பாடநூல் மற்றும் கல்வியியல் பணிகள் கழகம்). 2. கணினித் தமிழ் – முனைவர் இல. சுந்தரம். (விகடன் பிரசுரம்). 3. கீழடி – வைகை நதிக்கரையில் சங்ககால நகர நாகரிகம் (தொல்லியல் துறை வெளியீடு) 4. பொருறை, ஆற்றங்கரை நாகரிகம். (தொல்லியல் துறை வெளியீடு) 5. Social Life of Tamils (Dr.K.K.Pillay) A joint publication of TNTB & ESC and RMRL – (in print) 6. Social Life of the Tamils – The Classical Period (Dr.S.Singaravelu) (Published by: International Institute of Tamil Studies). 7. Historical Heritage of the Tamils (Dr.S.V.Subatamanian, Dr.K.D. Thirunavukkarasu) (Published by: International Institute of Tamil Studies). 8. The Contributions of the Tamils to Indian Culture (Dr.M.Valarmathi) (Published by: International Institute of Tamil Studies.) 9. Keeladi – ‘Sangam City Civilization on the banks of river Vaigai’ (Jointly Published by: Department of Archaeology & Tamil Nadu Text Book and Educational Services Corporation, Tamil Nadu) 10. Studies in the History of India with Special Reference to Tamil Nadu (Dr.K.K.Pillay) (Published by: The Author) 11. Porunai Civilization (Jointly Published by: Department of Archaeology & Tamil Nadu Text Book and Educational Services Corporation, Tamil Nadu) 12. Journey of Civilization Indus to Vaigai (R.Balakrishnan) (Published by: RMRL) – Reference Book. 					

UC25H02	Tamils and Technology	L	T	P	C
		1	0	0	1
Weaving and Ceramic Technology: Weaving Industry during Sangam Age, Ceramic technology, Black and Red Ware Potteries (BRW), Graffiti on Potteries.					
Design and Construction Technology: Designing and Structural construction House & Designs in household materials during Sangam Age, Building materials and Hero stones of Sangam age, Details of Stage Constructions in Silappathikaram, Sculptures and Temples of Mamallapuram, Great Temples of Cholas and other worship places,Temples of Nayaka Period, Type study (Madurai Meenakshi Temple), Thirumalai Nayaka rMahal, Chetti Nadu Houses, Indo, Saracenic architecture at Madras during British Period.					
Manufacturing Technology: Art of Ship Building, Metallurgical studies, Iron industry, Iron smelting, steel, Copper and gold Coins as source of history - Minting of Coins, Beads making, industries Stonebeads, Glass beads, Terracotta beads, Shell beads / bone beats, Archeological evidences, Gem stone types described in Silappathikaram.					
Agriculture and Irrigation Technology: Dam, Tank, ponds, Sluice, Significance of Kumizhi Thoompuof Chola Period, Animal Husbandry - Wells designed for cattle use , Agriculture and Agro Processing -Knowledge of Sea -Fisheries, Pearl, Conche diving, Ancient Knowledge of Ocean -Knowledge Specific Society.					
Scientific Tamil & Tamil Computing: Development of Scientific Tamil, Tamil computing, Digitalization of Tamil Books, Development of Tamil Software, Tamil Virtual Academy, Tamil Digital Library, Online Tamil Dictionaries, Sorkuvai Project.					
References 1. தமிழக வரலாறு, மக்களும் பண்பாடும், கே.கே. பிள்ளை (வெளியீடு: தமிழ்நாடு பாடநூல் மற்றும் கல்வியியல் பணிகள் கழகம்). 2. கணினித் தமிழ், முனைவர் இல. சுந்தரம். (விகடன் பிரசுரம்). 3. கீழடி, வைகை நதிக்கரையில் சங்ககால நகர நாகரிகம் (தொல்லியல் துறை வெளியீடு) 4. பொருறை, ஆற்றங்கரை நாகரிகம். (தொல்லியல் துறை வெளியீடு) 5. Social Life of Tamils (Dr.K.K.Pillay) A joint publication of TNTB & ESC and RMRL – (in print) 6. Social Life of the Tamils, The Classical Period (Dr.S.Singaravelu) (Published by: International Institute of Tamil Studies). 7. Historical Heritage of the Tamils (Dr.S.V.Subatamanian, Dr.K.D. Thirunavukkarasu) (Published by: International Institute of Tamil Studies). 8. The Contributions of the Tamils to Indian Culture (Dr.M.Valarmathi) (Published by: International Institute of Tamil Studies.) 9. Keeladi , ‘Sangam City Civilization on the banks of river Vaigai’ (Jointly Published by: Department of Archaeology & Tamil Nadu Text Book and Educational Services Corporation, Tamil Nadu) 10. Studies in the History of India with Special Reference to Tamil Nadu (Dr.K.K.Pillay) (Published by: The Author) 11. Porunai Civilization (Jointly Published by: Department of Archaeology & Tamil Nadu Text Book and Educational Services Corporation, Tamil Nadu) 12. Journey of Civilization Indus to Vaigai (R.Balakrishnan) (Published by: RMRL) – Reference Book.					

BS25203	Visual Arts and Crafts – II	L	T	P	C
		1	0	4	3
Course Objectives: <ul style="list-style-type: none">Understand the diversity and significance of traditional crafts in India, including techniques, materials, and cultural contexts.Examine the major art movements in Western art history and their influence on artistic expression and techniques.Analyze the differences and similarities between Indian crafts and Western art, considering cultural and historical influences.Cultivate a critical appreciation of artworks through visual analysis and contextual understanding.					
Introduction to Crafts – India: Outline the characteristics of exemplary crafts in India across the ages, including living folk traditions. Exercises in understanding historical aspects of the Craft Sector, Decoding Systems, and Transformation through Time. Case studies- crafts from north and south India - Bagh, Dhokra, Bidriware, Kantha, Meenakari, Saharanpur Wood Carving, Terracotta Pottery, Blue Pottery, Kondapalli Dolls.					
Works of The Western Artists – Arts: Leonardo da Vinci- Michelangelo- Vincent van Gogh- Pablo Picasso - Claude Monet - Georgia O'Keeffe - Jackson Pollock - Andy Warhol- Frida Kahlo - Henri Matisse.					
Works of The Western Artists – Crafts: Woodworks and Furniture Design - Gustav Stickley, Thomas Chippendale, George Nakashima, Charles and Ray Eames, Sam Maloof. Metalworks - Paul Revere, David Smith. Ceramics and Textiles - Bernard Leach, William Morris, Lucy Rie, Maria Martinez, Anni Albers, Kaffe Fassett, Sheila Hicks. Glass- Louis Comfort Tiffany, Dale Chihuly.					
Workshop: Hands-on workshop – Woodworking – Furniture – Ceramics & Glass.					
Weightage: Continuous Internal Assessment: 50%, End Semester Examinations: 50%.					
Assessment Methodology: Two Assessments with equal weightage. One Assessment as Internal written Test /Examination (50%), second as Assignment (50%) of any mode such as study, seminar, and or a combination of modes, etc.					
Required Reading <ol style="list-style-type: none">Jaitly, Jaya. “The Craft Traditions of India”, Lustre Press Pvt.Ltd, New Delhi, 1990.Jaitly Jaya. “Crafts Atlas of India”, Niyogi Books, N.Delhi, 2012.<i>The Story of Art</i> by E.H. Gombrich<i>Art: A World History</i> by Robert CummingArt in Theory 1900-2000: An Anthology of Changing Ideas edited by Charles Harrison and Paul WoodThe Shock of the New: Art and the Century of Change by Robert Hughes					
References <ol style="list-style-type: none">Traditional Indian art and culture by P. C. Jain					

2. Crafts of India: A Comprehensive Guide by D. R. K. Bhattacharya
3. Indian Handicrafts by M. A. K. Karamchandani Western Art: A History by Andrew Graham Dixon
4. The Lives of the Artists by Giorgio Vasari
5. Art Since 1900: Modernism, Antimodernism, Postmodernism by Hal Foster et al.
6. The Art Book by Phaidon Press

BS25204	Geometrical Drawing II	L	T	P	C
		1	0	4	3
Objectives: <ul style="list-style-type: none">• Explore the fundamental principles of perspective in drawing, focusing on solid forms and their spatial representation.• Explore the fundamental principles of perspective in drawing, focusing on solid forms and their spatial representation.• Gain proficiency in measured drawing techniques, emphasizing accuracy in proportions and dimensions of objects.• Integrate perspective drawing skills into design projects, effectively communicating three-dimensional concepts.					
Perspective – Solids: Introduction to Perspective- One-point, Two-point & Three-point perspective of Solids- cube, cuboids, cylinders, prisms, pyramids, spheres, cones.					
Perspective – Spaces & Buildings: One-Point Perspective for Interiors, Understanding the vanishing point and horizon line in interior spaces. Simple interior layouts, rooms, furniture using one-point perspective. Two-Point Perspective for Buildings, Two vanishing points for exterior views, Building facades and street views. Three-Point Perspective, Three-point perspective for dramatic viewpoints (high/low).					
Fast Techniques for perspective Drawings: One-Point Perspective, Simplified approach to one-point perspective. Practice quick sketches of simple interiors and objects. Two-Point Perspective, Rapid techniques for two-point perspective, Using Grid Systems for Speed. Expressive Line Work, Using loose, expressive lines to convey perspective Light and Shadow in Perspective, Adding light and shadow in sketches.					
Measured Drawing: Measured drawings of interior spaces, including furniture and fixtures, and measured drawings of small-scale buildings.					
Weightage: Continuous Internal Assessment: 50%, End Semester Examinations: 50%.					
Assessment Methodology: Two Assessments with equal weightage. One Assessment as Internal written Test /Examination (50%), second as Assignment (50%) of any mode such as study, seminar, and or a combination of modes, etc.					
Required Reading <ol style="list-style-type: none">1. The Art of Perspective: The Ultimate Guide for Artists in Every Medium by Phil2. Robert S. Oliver, "Perspective Drawing: A Step-by-Step Handbook," Dover Publications, 1995.3. Perspective Made Easy by Ernest R. Norling4. Drawing Perspective: How to See It and How to Draw It by Barbara A. D. Reynolds5. Sketching for Architecture + Interior Design by Stephanie S. Travis					

References:

1. Perspective for Artists *by Rex Vicat Cole*
2. The Complete Guide to Perspective *by William F. Powell*
3. Architectural Drawing: A Visual Compendium of Types and Methods *by David D. L. McCarthy*
4. Architectural Graphics *by Francis D. K. Ching*

BS25205	Computer Modelling and Simulation Techniques - I	L	T	P	C
		1	0	4	3
Objectives: <ul style="list-style-type: none">To introduce computer operation principles and explore image editing through software like Autocad, SketchUp, Photoshop and Illustrator.To impart training in computer-aided 2D drafting and 3D modelling through projects.To enable the use of computer applications to develop a design from the initial stages to the outcome.To enable the rendering of a building to create a photo-realistic image.					
The Basics of Modelling: Introduction - Overview of CAD applications, Interface and basic drawing tools, Advanced Techniques, Project Work, Geometric Patterns, Stained Glass Window Design, Abstract Shapes, Mosaic Design, and Perspective Drawing.					
Introduction to 3D modelling: Interface overview and navigation, Basic drawing tools. Components and Materials, Managing components and group. Applying textures and materials. Advanced Sketch-Up Techniques, Using layers and scenes, importing models from 3D Warehouse and using plugins.					
Rendering: Rendering and scene setting to create a photo-realistic picture, understanding material mapping, Environment setting and image-filling. Understanding bitmap images and vector graphics, image size and resolution. Basic tools for editing and creating graphics.					
Design and Detailing Using Software: Design and detailing exercise using software. Exercises - Illustrative Map - Sculptural Forms, Experiment with curves and shapes to make unique 3D forms. Interior Space Design, Model the interior paying attention to layout, furniture, and lighting. Use textures to enhance the atmosphere. Custom Furniture Design - Create a unique piece of furniture that incorporates both function and aesthetics. Consider ergonomic design principles. Visual Storytelling, Design a scene that tells a story. Art Installation Design, Create a conceptual design for an art installation.					
Weightage: Continuous Internal Assessment: 50%, End Semester Examinations: 50%.					
Assessment Methodology: Two Assessments with equal weightage. One Assessment as Internal written Test /Examination (50%), second as Assignment (50%) of any mode such as study, seminar, and or a combination of modes, etc.					
References: <ol style="list-style-type: none">Photoshop for Designers: A Comprehensive Guide" by Andrew FaulknerAutoCAD 2024 for the Interior Designer" by Dean MuccioMastering AutoCAD 2024 and AutoCAD LT 2024" by Brian C. BentonSketchUp Pro 2024: A Comprehensive Guide" by Darlene W. H."Vector Basic Training: A Systematic Creative Process for Building Precision Vector Artwork" by Von GlitschkaAdobe Photoshop Classroom in a Book" by Conrad Chavez and Andrew Faulkner					

7. "AutoCAD 2024: A Power Guide for Beginners and Intermediate Users" by John Carline
8. "Mastering AutoCAD 2024 and AutoCAD LT 2024" by Brian C. Benton
9. "SketchUp for Dummies" by Bill Fane and Ted Gargiulo
10. "Adobe Illustrator Classroom in a Book" by Brian Wood
11. "Illustrator CC: Visual QuickStart Guide" by Elaine Weinmann and Peter Lourekas.

BS25206	Studio II - Foundation Design Studio	L	T	P/S	C
		0	0	10	5
Course Objectives: <ul style="list-style-type: none">• Foster creativity in generating innovative product ideas for daily use, focusing on personal products, homeware, gifts and stationery.• Equip students with essential skills in sketching, prototyping, and using design software.• Teach students how to conduct user research and incorporate feedback into their designs to meet real-world needs.• Instil knowledge about sustainable design practices and material selection for everyday products through model making.• Engage in discussion and analytical thinking through seminars/ workshops.• Develop effective presentation skills to communicate design concepts clearly to diverse audiences.					
Prototype / project typology: Design of simple products - daily use, commonly used, stationaries, simple furniture like bookrack with prototype models.					
Areas of focus/ concern: <ul style="list-style-type: none">• Aesthetic and useability in terms of scale, colour, texture, etc.• Function and need: user requirements, anthropometrics, and ergonomics.• Detailing of the product image and symbolism.					
Weightage: Continuous Internal Assessment:50%, End Semester Examinations: 50%.					
Assessment Methodology: <p>Three Assessments with equal weightage (approx.33.33% each).</p> <p>Each assessment shall incorporate continuous marking of the work and performance during the particular assessment period.</p>					
References: <ol style="list-style-type: none">1. The Design of Everyday Things" by Don Norman.2. "Design Basics" by David A. Lauer and Stephen M. Pentak3. "Cradle to Cradle: Remaking the Way We Make Things" by William McDonough and Michael Braungart4. "Designing for Sustainability: A Guide to Building Greener Digital Products" by Tom Giannattasio5. <i>The Art of Innovation</i> by Tom Kelley.6. Will Jones; Architects Sketch books; Thames & Hudson; 2011.7. "Creative Confidence: Unleashing the Creative Potential Within Us All" by Tom Kelley and David Kelley8. "Design Thinking: Understanding How Designers Think and Work" by Peter G. Rowe					