RAMAIAH
Institute of Technology

CURRICULUM

Outcome Based Education

(Effective from the Academic Year 2026-2027)

SCHOOL OF ARCHITECTURE

I & II SEMESTER B.ARCH

Batch - 2026

RAMAIAH INSTITUTE OF TECHNOLOGY
(Autonomous Institute, Affiliated to VTU)
Bangalore- 560054

About the Institute:

In 1962, Dr. M. S. Ramaiah, a visionary philanthropist, established the Gokula Education Foundation with a noble mission to uplift society through education. The same year marked a pivotal moment in technical education in India with the founding of the M S Ramaiah Institute of Technology (MSRIT).

MSRIT offers an impressive array of 18 undergraduate and 15 postgraduate programs, all approved by the All India Council for Technical Education (AICTE). The National Board of Accreditation (NBA) has accredited all eligible programs at the undergraduate (UG) and postgraduate (PG) levels. In March 2021, MSRIT earned an 'A^+' grade from the National Assessment and Accreditation Council (NAAC), underscoring its unwavering commitment to academic excellence. Since 2007, the institute has proudly held Autonomous Status for its UG and PG programs, a prestigious recognition granted by the University Grants Commission (UGC) and Visvesvaraya Technological University (VTU). According to the Ministry of Education, Government of India's NIRF Ranking Framework, MSRIT ranks 75th among 1,584 leading engineering institutions and 31st among 131 architecture schools in India for 2025, highlighting its remarkable impact and leadership in education.

The institute participated in the Technical Education Quality Improvement Program (TEQIP), an initiative of the Government of India. To foster a research culture, the institute has established several specialized centres, including the Centre for Imaging Technologies, the Centre for Advanced Materials Technology, the Centre for Antennas and Radio Frequency Systems (CARFS), the Centre for Cyber Physical Systems, the Schneider Centre of Excellence, the Centre for Bio and Energy Materials Innovation, JSW Centre of Excellence in Power Systems and more. MSRIT boasts a faculty of 380 highly qualified members, 70% of whom hold doctoral degrees, and over 300 scholars currently pursuing Ph.D. degrees.

The Entrepreneurship Development Cell (EDC) and "Ramaiah Evolute" have been established on campus to support startup incubation. MSRIT features a dedicated Placement and Training department, a strong mentoring and proctorial system, a fully equipped sports department, and a spacious, air-conditioned library with a wide range of books and subscriptions to both international and national journals. The Digital Library provides access to online e-journals from renowned publishers, including Elsevier ScienceDirect, IEEE, Taylor & Francis, Springer Nature and Emerald. Additionally, the Institute is a member of DELNET, JRD Tata Memorial library, IISc, and the VTU Consortium for E-Resources.

The institute features a state-of-the-art auditorium, a well-equipped recording studio, and multiple advanced conference halls with videoconferencing capabilities. Additionally, MSRIT provides excellent hostel accommodations for both boys and girls, ensuring a comfortable living environment. MSRIT alumni have achieved remarkable success, holding prominent positions in India and internationally. They maintain strong connections with the institute through an engaged and active Alumni Association.

Founded on Dr. Ramaiah's unwavering commitment to knowledge and innovation, this remarkable institution continues to inspire generations of students and shape the future of engineering and technology in the country.

SCHOOL OF ARCHITECTURE

Established in 1992, the School of Architecture at Ramaiah Institute of Technology (RIT), Bengaluru, is committed to excellence in architectural education, design and research. The School provides a contemporary, interdisciplinary learning environment that integrates architectural design, building technology, sustainability, digital tools and professional exposure, preparing students to respond creatively and responsibly to the evolving built environment.

The School functions under Ramaiah Institute of Technology, an autonomous institution affiliated to Visvesvaraya Technological University (VTU), Belagavi. Its programmes are approved by the Council of Architecture (CoA), New Delhi, the statutory regulator for architectural education under the Architects Act, 1972. Teaching is design-led and is supported by site studies, workshops, industry interaction, research and experiential learning that develop critical thinking in architecture and allied disciplines.

Ramaiah Institute of Technology is accredited by the National Assessment and Accreditation Council (NAAC) with an A+ grade and is ranked 31st in the NIRF 2025 Architecture and Planning category.

The School offers a five-year Bachelor of Architecture (B.Arch.) programme with a sanctioned intake of 80, and two postgraduate programmes of two years' duration, Master of Architecture (Landscape Architecture) and Master of Architecture (Advanced Architecture), each with a sanctioned intake of 20. The School also offers a Ph.D. programme to support advanced research and scholarly inquiry in architecture. Together, the programmes engage with architectural design, sustainable practice, landscape and ecological systems, advanced and digital technologies, and contemporary architectural research.

The School's faculty comprises academicians, practising architects and specialists from allied disciplines. Their combined teaching, research and professional experience links theory, design and practice. Faculty support student development through mentoring, studio-based and innovative pedagogy, research projects and professional collaborations.

Students build a foundation in design thinking, technical knowledge, digital tools, sustainability, research and professional practice through studio work, hands-on learning, site exposure and interaction with practising professionals. The curriculum develops creativity, critical thinking, problem-solving and communication skills. Graduates pursue careers in architectural practice, urban design, landscape architecture, interior design, conservation, sustainable and computational design, project management, academia, research and consultancy, as well as entrepreneurship and advanced studies in India and abroad.

Through its combination of design, research and professional engagement, the School aims to develop architects and design professionals equipped to shape a responsive, resilient and future-ready built environment.

VISION OF THE INSTITUTE

To be an Institution of International Eminence, renowned for imparting quality technical education, cutting edge research and innovation to meet global socio-economic needs.

MISSION OF THE INSTITUTE

MSRIT shall meet the global socio-economic needs through -

1. Imparting quality technical education by nurturing a conducive learning environment through continuous improvement and customization.
2. Establishing research clusters in emerging areas in collaboration with globally reputed organizations.
3. Establishing innovative skills development, techno entrepreneurial activities and consultancy for socio-economic needs.

QUALITY POLICY

We at MS Ramaiah Institute of Technology strive to deliver comprehensive, continually enhanced, global quality technical and management education through an established Quality Management System complemented by the synergistic interaction of the stake holders concerned.

VISION OF THE DEPARTMENT

To be a leading centre of architectural education that nurtures creative and critical thinkers committed to shaping sustainable, inclusive and innovative built environments.

MISSION OF THE DEPARTMENT

MSRIT shall meet the global socio-economic needs through:

1. To impart design excellence by fostering creativity and critical thinking through studio-based learning supported by contemporary technology.
2. To inculcate sustainability, social responsibility, ethical values and a global outlook in the design and practice of architecture.
3. To develop professionally competent and entrepreneurial architects through interdisciplinary learning and real-world industry exposure.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs):

PEO1 Graduates will be able to create architecture of design excellence that is critically informed, applying emerging digital and computational technologies.

PEO2 Graduates will be able to deliver sustainable, socially responsible and ethically grounded built environments, with a global outlook rooted in the climatic and cultural context.

PEO3 Graduates will practice as competent professionals and collaborate effectively with architects and allied professionals.

PEO4 Graduates will pursue lifelong learning, research or higher studies and lead innovation and entrepreneurial ventures responsive to emerging societal needs.

KNOWLEDGE AND ATTITUDE PROFILE (WK)

WK1: A systematic, theory-based understanding of the natural sciences applicable to the discipline and awareness of relevant social sciences.

WK2: Conceptually-based mathematics, numerical analysis, data analysis, statistics and formal aspects of computer and information science to support detailed analysis and modelling applicable to the discipline.

WK3: A systematic, theory-based formulation of engineering fundamentals required in the engineering discipline.

WK4: Engineering specialist knowledge that provides theoretical frameworks and bodies of knowledge for the accepted practice areas in the engineering discipline; much is at the forefront of the discipline.

WK5: Knowledge, including efficient resource use, environmental impacts, whole-life cost, reuse of resources, net zero carbon, and similar concepts, that supports engineering design and operations in a practice area.

WK6: Knowledge of engineering practice (technology) in the practice areas in the engineering discipline.

WK7: Knowledge of the role of engineering in society and identified issues in engineering practice in the discipline, such as the professional responsibility of an engineer to public safety and sustainable development.

WK8: Engagement with selected knowledge in the current research literature of the

discipline, awareness of the power of critical thinking and creative approaches to evaluate emerging issues.

WK9: Ethics, inclusive behaviour and conduct. Knowledge of professional ethics, responsibilities, and norms of engineering practice. Awareness of the need for diversity by reason of ethnicity, gender, age, physical ability etc. with mutual understanding and respect, and of inclusive attitudes.

PROGRAM OUTCOMES (POs):

On completion of the 5-year B.Arch. Degree program, Bachelor of Architecture graduates will be able to:

PO1: Ability to create architectural designs that satisfy both aesthetic and technical requirements.

PO2: Adequate knowledge of the histories and theories of architecture and the related arts, technologies and human sciences.

PO3: Knowledge of the fine arts as an influence on the quality of architectural design.

PO4: Adequate knowledge of urban design, planning and the skills involved in the planning process.

PO5: Understanding of the relationship between people and buildings, and between buildings and their environment, and the need to relate buildings and the spaces between them to human needs and scale

PO6: Understanding of the profession of architecture and the role of the architect in society, in particular in preparing briefs that take account of social factors.

PO7: Understanding of the methods of investigation and preparation of the brief for a design project.

PO8: Understanding of the structural design, constructional and engineering problems associated with building design.

PO9: Adequate knowledge of physical problems and technologies and the function of buildings so as to provide them with internal conditions of comfort and protection against the climate

PO10: The necessary design skills to meet building users' requirements within the constraints imposed by cost factors and building regulations.

PO11: Adequate knowledge of the industries, organizations, regulations and procedures involved in translating design concepts into buildings and integrating plans into overall planning.

PROGRAM SPECIFIC OUTCOMES (PSOs):

PSO1: Graduates will be able to design creative, climate-responsive architectural solutions, using critical inquiry and digital, computational tools to resolve spatial, technical and contextual requirements.

PSO2: Graduates will be able to apply principles of sustainability, inclusivity and ethics to develop socially responsible built environments that respond to the climatic and cultural context with awareness of global practices

PSO3: Graduates will be able to demonstrate professional readiness in building technology, practice management and regulations, and collaborate with allied disciplines

Semester-wise Credit Breakdown for B.ARCH. Degree Curriculum Batch 2026-31
(as per Council of Architecture)

Semester / Course category	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eight	Ninth	Tenth	Total
PROFESSIONAL CORE COURSE (PC)	13	13	13	10	10	12	10	11	20	-	112
BUILDING SCIENCE & APPLIED ENGINEERING (BS & AE)	7	7	10	13	10	10	4	4	-	-	65
PROFESSIONAL ELECTIVES (PE)	2	4	1	-	4	2	6	3	3	-	25
OPEN ELECTIVES (OE)	1	-	-	1	2	-	-	2	-	-	6
PROJECT/SEMINAR/ INTERNSHIP (PAECC)	-	-	-	-	-	2	6	6	3	26	43
SKILL ENHANCEMENT COURSE (SEC)	3	2	2	2	-	-	-	-	-	-	9
TOTAL	26	26	26	26	26	26	26	26	26	26	260

Note: The Bachelor of Architecture (B.Arch) programme comprises a total of 260 credits and is structured in accordance with the curriculum framework prescribed by the Council of Architecture (CoA) under the *Minimum Standards of Architectural Education Regulations, 2020*. Each on-campus semester shall be of 15 weeks' duration, during which the prescribed course content shall be completed. The total credits shall be distributed across the prescribed course categories to ensure a balanced, comprehensive, and progressive architectural education.

The course categories prescribed by the Council of Architecture, along with their respective aims, are as follows:

1. **Professional Core Courses**: These courses establish the essential knowledge base and competencies required for architectural education and practice. They develop students' abilities in design thinking, spatial planning, architectural representation, historical and theoretical understanding, and the integration of functional, aesthetic, and contextual considerations. These include Architectural Design, Basic Design, Architectural Graphics, History of Architecture, and Theory of Architecture.
2. **Building Sciences and Applied Engineering (BS & AE)**: These courses provide the scientific, technical, and engineering knowledge that informs and supports architectural design. They develop students' understanding of building materials and construction, structural systems, building services, environmental conditions, building performance, and construction technologies, enabling the integration of technical, functional, and environmental considerations into architectural practice.
3. **Elective Courses (PE / OE):** These courses provide opportunities for students to broaden their knowledge, explore specialised areas, and pursue individual interests beyond the prescribed core curriculum.Elective courses are classified into two :

- **Professional Electives (PE):** courses which offer specialised, advanced, or supportive knowledge within the discipline of architecture.
- **Open Electives (OE):** courses that facilitate interdisciplinary learning and the development of additional knowledge, proficiencies, and skills from other disciplines or domains.

4. **Employability Enhancement Courses (EEC)**: These courses develop the professional competencies, practical skills, and additional capabilities required for career readiness and lifelong learning. They are classified into:

- **Professional Ability Enhancement Compulsory Courses (PAECC):** which develop essential competencies considered necessary for professional and career development.
- **Skill Enhancement Courses (SEC):** which focus on developing specific technical, professional, digital, communication, or other relevant skills that enhance employability and professional effectiveness.

Course Evaluation and Assessment Pattern

The course categories define the intended learning focus and competencies of the B.Arch. programme. The assessment of individual courses shall be determined by the nature of the course, its prescribed Course Outcomes (COs), learning activities, and requirements specified in the curriculum.

Accordingly, courses across the prescribed categories shall be evaluated through Continuous Internal Evaluation (CIE), Semester End Examination (SEE), Term Work, or Viva Voce, as applicable to the respective course structure.

Internal assessment may comprise tests, assignments, seminar presentations, reports, discussions, sketches, models, documentation, and other assessment components, as applicable to the course and in accordance with the requirements prescribed by the Council of Architecture (CoA). Courses involving substantial practical, design, or application-oriented work may be assessed through Term Work or Viva Voce, while theory-oriented courses may be assessed through CIE and SEE. The applicable assessment components, maximum marks, and weightages shall be specified for each course.

The evaluation pattern shall be as follows:

1. Continuous Internal Evaluation (CIE): CIE shall be evaluated for 50 marks, comprising internal tests (30 marks) and other assessment components (20 marks).Three internal tests shall be conducted during the semester. Each internal test shall consist of three questions, of which students shall answer any two full questions. Each question shall address the Course Outcomes (COs) prescribed for the respective test. The average of the three internal tests shall be considered for awarding 30 marks. The remaining 20 marks shall be assessed through other components as decided by the course instructor.

2. Semester End Examination (SEE): The SEE shall be conducted for 100 marks and scaled down to 50 marks. The question paper shall consist of ten questions with internal choice, comprising two questions per unit. Students shall answer any five full questions, selecting at least one question from each unit.

3. Term Work: Term Work shall be evaluated for 50 marks by a panel of one external examiner and one internal examiner in the absence of students. The assessment shall be based on the quality, completeness, technical accuracy, and overall standard of the submitted work. Depending on the course requirements, the evaluation may include assignments, drawings, reports, models and other prescribed deliverables as applicable to the course.

4. Viva Voce: Viva Voce shall be conducted for 50 marks by a panel of one external examiner and one internal examiner except for Architectural Design Project and Practical Training for which the panel will constitute two external examiners and one internal examiners. Students shall individually present and explain their work, demonstrate their understanding of the concepts and techniques applied, and respond to questions related to their submissions and course content. The assessment shall consider conceptual understanding, practical application, achievement of the prescribed Course Outcomes (COs), and the ability to communicate and justify design decisions and technical solutions.

SCHEME OF TEACHING & EXAMINATION
I SEMESTER B. ARCH
Batch 2026

Sl. No	Course Code	Course Title	Category	Credits				Total Contact hours per week			
				L	T	P	Total	L	T	P	S
1	26AR101	Basic Design	PC	0	0	7	7	0	0	7	7
2	26AR102	Building Materials & Construction Technology I	BS& AE	0	0	4	4	0	0	4	4
3	26AR103	Architectural Graphics I	PC	0	0	3	3	0	0	3	3
4	26AR104	History of Architecture I	PC	3	0	0	3	3	0	0	3
5	26AR105	Architectural Structures I	BS & AE	3	0	0	3	3	0	0	3
6	26AR106	Art in Architecture & Measured Drawing	PE	0	0	2	2	0	0	2	2
7	26AR107	Communication Skills	SEC	1	0	0	1	1	0	0	1
8	26AR108	Innovation and design thinking	OE	1	0	0	1	1	0	0	1
9	26AR109	Kannada	SEC	2	0	0	2	2	0	0	2
TOTAL				**10**	**0**	**16**	**26**	**10**	**0**	**16**	**26**

Nomenclature: PC: Professional core, BS & AE: Building science and applied engineering, PE: Professional elective, OE: Open elective, SEC: Skill enhancement course.

Credit Definition:

- **1 credit = 1 hour/week of lecture (L)**
- **1 credit = 1 hour/week of tutorial (T)**
- **1 credit = 1 hours/week of practical(P)**
- **Self Learning Hours (S)**

NOTE:

- For all viva voce examinations, one internal faculty and one external faculty will conduct the exam.
- Portfolios have to be submitted on a prescribed date announced by the department for the viva voce subjects.
- All students have to register on the first day at the beginning of the Viva voce exam.
- All students have to register on the first day of Term work exams.
- The Department conducts non-credited summer and winter workshops in each academic year to support academic learning. Students are encouraged to voluntarily enroll in this program to enhance their knowledge.

SCHEME OF TEACHING & EXAMINATION -
II SEMESTER B. ARCH
Batch 2026

Sl. No	Course Code	Course Title	Category	Credits				Total Contact hours per week			
				L	T	P	Total	L	T	P	S
1	26AR201	Architectural Design I	PC	0	0	7	7	0	0	7	7
2	26AR202	Building Materials & Construction Technology II	BS & AE	0	0	4	4	0	0	4	4
3	26AR203	Architectural Graphics II	PC	0	0	3	3	0	0	3	3
4	26AR204	History of Architecture II	PC	3	0	0	3	3	0	0	3
5	26AR205	Architectural Structures II	BS & AE	3	0	0	3	3	0	0	3
6	26AR206	Surveying & Leveling	PE	2	0	0	2	2	0	0	2
7	26AR207	Computers in Architecture I	SEC	0	0	2	2	0	0	2	2
8	26AR208	Art Appreciation and measure drawing	PE	2	0	0	2	2	0	0	2
TOTAL				**10**	**0**	**16**	**26**	**10**	**0**	**16**	**26**

Nomenclature: PC: Professional core, BS & AE: Building science and applied engineering, PE: Professional elective, OE: Open elective, SEC: Skill enhancement course.

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- All students have to register on the first day of Term work exams.
- The Department conducts non-credited summer and winter workshops in each academic year to support academic learning. Students are encouraged to voluntarily enroll in this program to enhance their knowledge.

SEMESTER – I

BASIC DESIGN	
Course Code: 26AR101	**Course Credits: 0 : 0 : 7**
Prerequisite: Nil	**Contact Hours:7x15P**
Course Coordinator: Asst. Prof. Megha Ann Jose	

Course Content

UNIT - I

An introduction to the basic formal concepts in the two-dimensional arts, elements of aesthetic organization: line, shape, value, texture, harmony, balance, symmetry, etc., from observation of contemporary examples of design and their application by drawing in varied media. Exercises related to elements of design and perception of space.

Concept of space, form, and enclosure; principles of design like harmony, symmetry, scale, and proportion, etc., and their application to endow a quality to spaces and forms. Principles and elements of composition with 2D & 3D exercises using single and multiple elements, colors, textures and different materials.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Discussion.

UNIT - II

Using Line, plane, and volume as a means to express objective and spatial concepts in various media to construct aesthetically pleasing compositions. Visual and tactile understanding of the inter-relationship of form, structure, and materials.

To translate, connect, and bring out the relationship of aesthetic principles with architecture.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Discussion.

UNIT - III

Emphasize on the transformation of conceptual drawings to 2D drawing.
Surface development of solids; Orthographic projection, measuring and drawing to scale; Conventions of architectural drawing, practice of line-types, line-weights symbols, Lettering, rendering materials, textures, tones in pencil and pen-and-ink drawing. Model-making.
Basics of preparation of plans, elevations, sections, and views.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Discussion.

UNIT – IV

Parameters of design, anthropometrics, human activity and the use of space.
Analysis of solid and void relations.
Focus on drafting and rendering using different media,views and sketches. Enable the students towards presentation techniques and understanding the form by 3D manual study models and Anthropometry study.

- Pedagogy / Course delivery tools-: Chalk and talk, Power Point Presentation, Discussion.

UNIT - V

Basics of preparation of plans, elevations, sections and views.Preparation of final sheets with all the requirements and final models. Introduction to AI-assisted design visualization, drafting review, accessibility assessment and presentation.

- Pedagogy / Course delivery tools-: Chalk and talk, Power Point Presentation, Discussion.

Suggestive Typologies: *The projects would be based on small, everyday situations involving simple circulation, materials and use. It could be a typology of private or public nature like bedroom, bathroom, kitchen, shop, pavilion, crèche, snack bar, residence, petrol bunk, fire station, bus stop.*

Textbooks:

1. Jim Krause, 'Basic Design Index'; David & Charles, 2004
2. Kenneth F. Bates, 'Basic Design: Principles and Practice'; Barnes & Noble Books, 1979
3. Bryan Lawson, 'How Designers Think'; Architectural Press; 4th Edition, 2005
4. Wucius Wong, 'Principles of Two-Dimensional Design'; Wiley; 1st Edition, 1972
5. Christian Leborg, 'Visual Grammar', Princeton Architectural Press; 1st Edition, 2006
6. Sean Adams, Terry Stone, Noreen Morioka, 'Color Design Workbook: A Real World Guide to Using Color in Graphic Design'; Rockport Publishers; Illustrated Edition, 2008
7. Wucius Wong, 'Principles of Three-Dimensional Design'; Van Nostrand Reinhold; 1st Edition, 1977
8. 8.Debkumar Chakrabarti, " Indian Anthropometric Dimensions for Ergonomic Design
9. Practice", 1997, National Institute of Design.
10. 9.John Berger, 'Ways of Seeing' 1972, Penguin, UK
11. 10.Maitland Graves, 'The Art of Color and Design', McGraw-Hill, 1951
12. 11.Don Norman, 'The Design of Everyday Things'; Basic Books; Revised Edition, 2013
13. 12.Aaris Sherin, 'Design Elements: Color Fundamentals'; Rockport Publishers, 2012
14. 13.Alain De Botton, 'How Proust Can Change Your Life'; Picador USA, 2006
15. 14.Alan Fletcher, 'The Art of Looking Sideways'; Phaidon Press; 1st Edition 2001
16. 15.Herman Hertzberger, 'Lessons for Students in Architecture'; nai010 publishers, 2005
17. 16.Paul Jacques Grillo, 'Form, Function and Design'; Dover Publications, 1975
18. 17.Paul Jacques Grillo, 'What is Design?'; Theobald Publishers, 1960
19. 18.Peter H Reynolds, 'The Dot'; Candlewick Press, 2003

20. 19.Tom Alphin, The Lego Architect, No Starch Press, 2015

Course Outcomes (COs):

The students will be able to -

1. Understand the basic principles and elements of design using appropriate materials to make compositions.(PO2, PO3, PSO1)
2. Apply aesthetic principles to develop architectural compositions that demonstrate visual order, proportion, balance and harmony. (PO2, PSO1)
3. Analyze and synthesize the relationship between space, form and material to generate architectural compositions. (PO1, PO3, PSO1)
4. Analyze and evaluate human dimensions and anthropometric principles to develop spatial and architectural design solutions. (PO1, PO5, PSO1)
5. Create and communicate architectural ideas through appropriate manual rendering and AI assisted presentation techniques. (PO3, PSO1)

Course Assessment and Evaluation:

<table>
<tr><th colspan="4">Continuous Internal Evaluation (CIE): 50 Marks</th></tr>
<tr><th colspan="2">Assessment Tool</th><th>Marks</th><th>Course outcomes addressed</th></tr>
<tr><td colspan="2">Review-I</td><td>20</td><td>CO1, CO2</td></tr>
<tr><td colspan="2">Review-II</td><td>30</td><td>CO3, CO4, CO5</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="2">Semester End Examination (SEE): TERM-WORK</td><td rowspan="3">50</td><td rowspan="3">CO1, CO2, CO3, CO4, CO5</td></tr>
<tr><td>Design/Drawing</td><td>Model</td></tr>
<tr><td>30</td><td>20</td></tr>
</table>

NOTE:

- Literature survey will be a requirement for the Architectural Design study.
- For all Term work examinations, one internal faculty and one external faculty will conduct the exam
- Portfolios must be submitted on the prescribed date announced by the department for all subjects.
- All students must register on the first day of **Term work exams.**

SEMESTER – I

BUILDING MATERIALS & CONSTRUCTION TECHNOLOGY –I	
Course Code: 26AR102	**Course Credits: 0 : 0 : 4**
Prerequisite: Nil	**Contact hours: 4x15P**
Course Coordinators: Assoc. Prof. Divya Susanna Ebin	

Course Content

UNIT - I

Introduction to Architectural Drawing & Instruments used to prepare Building Drawings Description of other technical details required for Basic drawings: Lines, Hatches, Lettering, Scales and proportion, Composition.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Videos

UNIT - II

Brick masonry: Basic components of masonry, Stretcher and Header bond, English Bond, Flemish Bond, Brick piers, Garden walls

Material: Clay bricks, aggregate, stone, Terracotta.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Videos

UNIT - III

Stone Masonry: Ashlar masonry, Rubble masonry.

Material study: Stone, Brick, Mud mortar.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Videos

UNIT - IV

Arches: Typical arch and its basic components, Ogee arch, semicircular arch, four-centered arch.

Lintels: R.C.C lintel, Brick lintel, stone lintel.

Material Study: Sand, Fly ash, cement, lime, aggregate.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Videos

UNIT - V

Typical Section through a building from foundation to parapet wall.

Introduction to types of foundation: Shallow foundations (ex: raft foundation), Deep foundation (pile foundation)

Material study: P.C.C., Concrete blocks, DPC. Introduction to AI-assisted construction visualization and digital construction documentation.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation,

Videos

Textbooks:

1. Mario Salvarodi, 'The Art of Construction'; Chicago Review Press, 3rd Edition 2000
2. P Purushothama Raj, 'Building Construction Materials and Techniques'; Pearson India Education Services, 2016
3. Roy Chudley, 'Construction Technology'; Pearson Education, 2014
4. R. Barry, 'Construction of Buildings - Vol 1'; Wiley-Blackwell, 1999
5. W. B. Mckay, 'Building Construction -Vol 1', Pearson Education India, 2013
6. Richard Kreh, 'Building with Masonry: Brick, Block and Concrete'; Taunton Press, 1998
7. 'Bonds and Mortars in the Wall of Brick'; St. Louis Hydraulic Press Brick Co, 1914
8. William Frost, 'Brick arches: Their Setting Out and Construction'; Caxton Publishing, 1932

Course Outcomes (COs):

The students will be able to -

1. Draft and read architectural drawings using architectural conventions. (PO1, PO3, PO7, PO10, PSO1)
2. Draft and analyse different brick masonry bonds (PO1, PO2, PO5, PO8, PO9, PO10, PSO1, PSO2)
3. Outline the various stone masonry types and required materials (PO1, PO2, PO8, PO9, PSO1)
4. Formulate spanning of openings using arches and lintels (PO1, PO8, PO9, PO10, PSO1, PSO2, PSO3)
5. Observe and understand the basic details from construction to drawing (PO1, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PSO1, PSO2, PSO3)

Course Assessment and Evaluation:

Continuous Internal Evaluation (CIE): 50 Marks		
Assessment Tool	**Marks**	**Course outcomes addressed**
Internal Test-I	30	CO1, CO2
Internal Test-II	30	CO3, CO4
Internal Test-III	30	CO4, CO5
An average of three internal tests shall be taken for 30 marks.		
Other Components	**Marks**	**Course outcomes attained**
Assignment-1	10	CO1, CO2
Assignment-2	10	CO3, CO4, CO5
Semester End Examination (SEE): TERM-WORK	50	CO1, CO2, CO3, CO4, CO5

Portfolio	Material Portfolio		
35	15		

NOTE:

- For all Term work examinations, one internal faculty and one external faculty will conduct the exam
- Portfolios must be submitted on the prescribed date announced by the department for all subjects.
- All students must register on the first day of Term work exams.

SEMESTER – I

ARCHITECTURAL GRAPHICS – I	
Course Code: 26AR103	**Course Credits: 0 : 0 : 3**
Prerequisite: Nil	**Contact Hours: 3X15P**
Course coordinator: Assoc. Prof. Dr. Rashmi N	

Course Content

UNIT - I

Introduction to fundamental techniques of architectural drawings, drafting, and lettering. Introduction of plane geometry and polyhedral structures

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

UNIT - II

Orthographical projection of points, lines, planes, shapes and solids

- Pedagogy / Course delivery tools-: Power Point Presentation, Chalk and talk.

UNIT - III

Orthographic projection of solids and sections of solids

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

UNIT - IV

Developments and interpenetrations of objects. Three-dimensional representations of solid forms in isometric.

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

UNIT - V

Introduction of AI in three dimensional representation of slope roof houses and flat roof houses. Developments and interpenetrations of built forms. Model making using different materials.

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

Textbooks:

1. Ruzaimi Mat Rani, ‘A Guide to Visual Presentation’; Rockport Publishers, 2015
2. Kevin Forseth, ‘Graphics for Architecture’; Wiley, 1979
3. Robert Gill, ‘Rendering with Pen & Ink’; Thames & Hudson Ltd, 1984
4. Douglas Cooper, ‘Drawing and Perceiving’, John Wiley & Sons, 2000.
5. C.Leslie Martin, ‘Architectural Graphics’; Macmillan Pub Co, 1970
6. Milind Mulick, ‘Perspective’; Jyotsna Prakashan, 2006
7. Francis D K Ching, ‘Architectural Graphics’; Wiley, 6th Edition 2015
8. I .H.Morris, ‘Geometrical Drawing for Art Students’; Longmans, Green and Co, 1908

Course Outcomes (COs):

The students will be able to-

1. Understand and apply the importance of drafting in architecture. (PO1,PO3,PO5; PSO1)
2. Analyze and understand two-dimensional geometry. (PO1,PO3,PO5;PSO1)
3. The techniques of orthographic projection in drawings. (PO1,PO5,PO8;PSO1,PSO3)
4. The importance of three-dimensional forms in design projects. (PO1,PO3,PO5;PSO1)
5. Develop models from drawings and understand their application in architectural design. (PO1,PO3,PO5,PO7,PO8;PSO1)

Course Assessment and Evaluation:

<table>
<tr><td colspan="4">Continuous Internal Evaluation (CIE): 50 Marks</td></tr>
<tr><td colspan="2">Assessment Tool</td><td>Marks</td><td>Course outcomes addressed</td></tr>
<tr><td colspan="2">Internal Test-I</td><td>30</td><td>CO1, CO2</td></tr>
<tr><td colspan="2">Internal Test-II</td><td>30</td><td>CO3, CO4</td></tr>
<tr><td colspan="2">Internal Test-III</td><td>30</td><td>CO4, CO5</td></tr>
<tr><td colspan="4">An average of the three internal tests shall be taken for 30 marks.</td></tr>
<tr><td colspan="2">Other Components</td><td>Marks</td><td>Course outcomes attained</td></tr>
<tr><td colspan="2">Assignment-1</td><td>10</td><td>CO1, CO2</td></tr>
<tr><td colspan="2">Assignment-2</td><td>10</td><td>CO3, CO4, CO5</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="2">Semester End Examination (SEE): TERM-WORK</td><td rowspan="3">50</td><td rowspan="3">CO1, CO2, CO3, CO4, CO5</td></tr>
<tr><td>Portfolio</td><td>Model</td></tr>
<tr><td>30</td><td>20</td></tr>
</table>

NOTE:

- For all Term work examinations, one internal faculty and one external faculty will conduct the exam
- Portfolios must be submitted on the prescribed date announced by the department for all subjects.
- All students must register on the first day of Term work exams.

SEMESTER – I

HISTORY OF ARCHITECTURE -I	
Course Code: 26AR104	**Course Credits: 3 : 0 : 0**
Prerequisite: Nil	**Contact Hours: 45L+45S**
Course coordinator: Asst. Prof. Harshita D	

Course Content

UNIT - I

Egypt -Influences, architectural character. Evolution of pyramids from Mastabas to Rock Hewn Tombs. Egyptian Cult temple (Temple of Khons, Karnak), Mortuary temple (Temple of Hatshepsut) & Birth temple (Mamisi temple). Egyptian architectural features like pylons, clearstory windows, obelisks, hieroglyphics and sphinx.

- Pedagogy / Course delivery tools-: Power Point Presentation, Chalk and talk.

UNIT - II

Architecture of West Asia - Architectural character & influences;Ziggurats - Urnammu, Tchoga Zanbil, Assyrian Ziggurat; Palaces – Khorsabad;

Persia – Influences, Architectural character, columns, capitals & Palace at Persepolis

- Pedagogy / Course delivery tools-: Power Point Presentation, Chalk and talk.

UNIT - III

Indus valley civilization - Salient features of Indus valley Civilization, with special reference to **Harappa** and **Mohenjo-daro**, including granary, house plan, Great bath, toilet, privy etc.

Vedic period – Vedic village, huts, gateway, influence of Vedic elements over Buddhist architecture. **Mauryan period** – Architectural character, Ashok stambha.

Buddhist architecture: Evolution of stupas and its features from the Early Buddhist (Hinayana) to Mahayana phase; Study of chaitya halls & Viharas

- Pedagogy / Course delivery tools-: Power Point Presentation, Chalk and talk.

UNIT - IV

Greece –Influences, architectural characteristics, classical orders (Doric, Ionic, Corinthian) and optical refinements. Salient features of Greek architecture through the study of temples, sacred precincts, and civic monuments.

Religious Architecture: Parthenon (Doric Order), Erechtheion (Ionic Order),
Civic Architecture: Agora of Athens (Public Square), Theatre of Epidaurus (Theatre),Tower of the Winds
Sacred Precinct / Citadel: Acropolis of Athens

- Pedagogy / Course delivery tools-: Power Point Presentation, Chalk and talk.

UNIT - V

Rome – Study of the architectural characteristics of Roman civic, religious, commemorative structures.

Religious Architecture: Pantheon (circular temple), Maison Carrée (rectangular temple)
Civic Architecture: Roman Forum, Basilica of Maxentius, Colosseum, Baths of Caracalla (Thermae),Pont du Gard
Commemorative Monuments: Arch of Titus, Trajan's Column

Introduction to AI applications in the interpretation of architectural history through appropriate case studies.

- Pedagogy / Course delivery tools-: Power Point Presentation, Chalk and talk.

Textbooks:

1. Spiro Kostof, 'A History of Architecture: Settings and Rituals'; Oxford University Press, 1995
2. Upinder Singh, A History of Ancient and Early Medieval India; Pearson Education India, 2009
3. William Bell Dinsmoor, 'The Architecture of Ancient Greece: An account of its historic development'; Batsford, 3rd Edition 1975.
4. Michael Fazio, Marian Moffett, 'A World History of Architecture', Lawrence King, 2nd Edition 2008
5. E Baldwin Smith, 'Egyptian Architecture as Cultural Expression'; Appleton And Company, 1938
6. J M Kenoyer, 'Ancient Cities of the Indus Valley Civilisation'; Oxford University Press, 1998
7. Clemente Marconi, 'The Oxford Handbook of Greek and Roman Art and Architecture'; Oxford University Press, 2018
8. D S Robertson, 'A Handbook of Greek & Roman Architecture'; Cambridge University Press, 1954
9. Sir Banister Fletcher, 'A History of Architecture'; CBS Publishers and Distributors, 2003
10. Edith Tomory, 'History of Fine Arts in India & The West'; Orient Black Swan, 1989

Course outcomes (COs):

The students will be able to -

1. Explain the influence of culture and climate on Egyptian architecture, and describe the characteristics of mastabas, pyramids, rock-hewn tombs, and cult, mortuary and mamisi temples.(PO1, PO2, PO3, PO5, PO6 , PSO:1, PSO2)
2. Illustrate the chronological framework to understand the development of design and construction techniques of West Asia and the Persian period. (PO1, PO2, PO3, PO5, PSO:1, PSO2)
3. Summarize the significant structures of Indian architecture in historical, regional and cultural contexts, and illustrate their features through sketches. (PO1, PO2, PO3, PO5, PO6 , PSO:1, PSO2)
4. Explain and illustrate the evolution of different architectural styles due to the restraints imposed by prevalent social and cultural environments, availability of materials, climate, and geography. (PO1, PO2, PO3, PO4,PO5, PO6 , PSO:1, PSO2)
5. List and explain the significant developments in construction and design: concepts, architects and movements that shaped architecture into what it is today and illustrate how their ideas influence current design (PO1, PO2, PO3, PO5, PO6, PSO:1, PSO2)

Course Assessment and Evaluation:

Continuous Internal Evaluation (CIE): 50 Marks		
Assessment tool	**Marks**	**Course outcomes attained**
Internal Test-I	30	CO1, CO2
Internal Test-II	30	CO3, CO4
Internal Test-III	30	CO4, CO5
An average of the three internal tests shall be taken for 30 marks.		
Other Components	**Marks**	**Course outcomes attained**
Assignment-1	10	CO1, CO2
Assignment-2	10	CO3, CO4, CO5
Semester-End Examination (SEE) (Scaled to 50 Marks)	100	CO1, CO2, CO3, CO4, CO5

SEMESTER – I

ARCHITECTURAL STRUCTURES – I	
Course Code: 26AR105	**Course Credits: 3 : 0 : 0**
Prerequisite: Nil	**Contact Hours: 45L+45S**
Course coordinator: Asst. Prof. M. Vijayanand	

Course Content

UNIT - I

Basic Structural Elements & Materials: Introduction to basic structural systems, structural concept and application of arches, trusses, domes and shells in architecture. Materials: Basic mechanical properties of structural steel, bricks, stone, concrete & timber.

- Pedagogy / Course delivery tools-:Case studies, site visits, failure analysis exercises

UNIT - II

Forces: Definition of force and classification of system of force.
Triangle law of forces, parallelogram law of forces, rectangular components, resolution of forces, Resultant and equilibrant of forces. resolving problems on resolution of forces, resultant. Principle of transmissibility, Moment and couple, Varignon's theorem of moments – resolving problems on above. Equilibrium of force system: Resolving problems

- Pedagogy / Course delivery tools-: Lecture and Numerical problems.

UNIT - III

Types of loads - Concentrated load, UDL, UVL
Types of supports, Problems on support reactions for the beams, trusses.

- Pedagogy / Course delivery tools-: Lecture and Numerical problems.

UNIT - IV

Centroid: Derivation of centroid – square, rectangular, circular & flanged sections.
Resolving problems on finding centroid for planar surfaces.

- Pedagogy / Course delivery tools-: Lecture and Numerical problems.

UNIT - V

MI of planar surfaces about its centroidal axis, Parallel axis theorem & explanation
Problems on MI - Square, rectangular, circular, Hollow circular, hollow rectangular, square sections, T section, symmetrical I section, and unsymmetrical I section. Introduction to AI-assisted section property visualization, derivation verification, numerical problem-solving support, and digital engineering analysis.

- Pedagogy / Course delivery tools-: Lecture and Numerical problems.

Textbooks:

1) M.N. Shesha Prakash, Ganesh B Mogaveer, 'Elements of Civil Engineering & Engineering Mechanics'; PHI Learning Pvt. Ltd., 2014
2) Syed Shakeeb Ur Rehman, V. Madhava Rao, 'Elements of Civil Engineering & Engineering Mechanics'; Pearson Education, 2011

References :

1. Chanakya Arya, 'Design of Structural Elements'; Taylor & Francis Group, 2009
2. Trevor Draycott, Peter Bullman, 'Structural Elements Design Manual'; Routledge, 2009
3. James Ambrose, Patrick Tripeny, 'Simplified Engineering for Architects and Builders'; Wiley, 2016
4. Mustafa Mahamid, Edwin H Gaylord, Charles N Gaylord, 'Structural Engineering Handbook'; McGraw-Hill, 2010
5. Jacques Heyman, 'The Science of Structural Engineering'; Imperial College Press, 1999
6. W. F. Chen, E. M. Lui, 'Handbook of Structural Engineering'; CRC Press; 2nd Edition, 2005

Course Outcomes (COs):

The students will be able to -

1. Describe the different Structural systems & the mechanical properties of the materials used for structural construction. (PO2,PO8; PSO3)
2. Apply laws of forces, resolution, moments and equilibrium to solve force-system problems.(PO1,PO8; PSO3)
3. Understand the types of beams and loads and calculate support reactions for beams and trusses under different types of loads.(PO8,PO10; PSO1,PSO3)
4. Understand and determine the centroid of planar and flanged sections. (PO1,PO8; PSO3)
5. Evaluate the moment of inertia of sections and verify results using AI-assisted tools. (PO8,PO10; PSO1, PSO3)

Course Assessment and Evaluation:

Continuous Internal Evaluation (CIE): 50 Marks		
Assessment tool	**Marks**	**Course outcomes attained**
Internal Test-I	30	CO1, CO2
Internal Test-II	30	CO3, CO4
Internal Test-III	30	CO4, CO5
An Average of the three internal tests shall be taken for 30 marks.		
Other Components	**Marks**	**Course outcomes attained**
Assignment-1	10	CO1, CO2
Assignment-2	10	CO3, CO4, CO5
Semester-End Examination (SEE) (Scaled to 50 Marks)	100	CO1, CO2, CO3, CO4, CO5

SEMESTER – I

ART IN ARCHITECTURE & MEASURED DRAWING	
Course Code: 26AR106	**Course Credits: 0 : 0 : 2**
Prerequisite: Nil	**Contact Hours: 2x15P**
Course coordinator: Assoc. Prof. Dr. Rashmi N.	

Course Content

UNIT - I

Introduction to basic drafting and understanding the use of scale in architectural documentation through drafting and documentation of a simple table,chair, building elements.. Introduction to the fundamentals of freehand sketching. Introduction to use of grids of one-point, two-point and three-point perspective in sketching. black and white rendering techniques in pen, charcoal, pencil.

- Pedagogy / Course Delivery Tools: PowerPoint Presentation, Chalk and Talk.

UNIT - II

Introduction to basic tools, mediums and techniques of rendering and documentation of architectural elements, street furniture and built forms. Introduction to fundamentals of colour theory and colour rendering techniques. Development of model-making skills using paper, basic drafting techniques, origami and kirigami concepts.

- Pedagogy / Course Delivery Tools: PowerPoint Presentation, Chalk and Talk

UNIT – III

Introduction to photography as a tool for an architectural measured drawing and Documentation. Measurement and documentation of temporary structures such as kiosks. Development of architectural model-making skills using clay, millboard, balsawood or boxboard.

- Pedagogy / Course Delivery Tools: PowerPoint Presentation, Chalk and Talk

UNIT – IV

Study of different vernacular architecture, its elements and construction details through sketching, drafting and photography. Reproduction, reading and understanding of old measured drawings, blue prints, maps from books etc.

- Pedagogy / Course Delivery Tools: PowerPoint Presentation, Chalk and Talk.

UNIT - V

Measurement and documentation of public spaces or the heritage precincts. Incorporating signages and structures, urban furniture and spatial relationships. Students will explore AI-assisted tools for perspective visualization, digital documentation, model making and presentation.

- Pedagogy /Course Delivery Tools: PowerPoint Presentation, Chalk and Talk

Textbooks:

1. Carl F Schmidt, ‘Fences, Gates and Garden Houses: A Book of Designs with Measured Drawings’; Dover Publications, 2013
2. William Radford, ‘Architectural Details and Measured Drawings of Houses of the Twenties’; Dover Publications, 2012

3. William Radford, ‘Old House Measured and Scaled Detail Drawings - for Carpenters and Builders’; Dover publications, 1984
4. Frank Melendez, ‘Drawing from the Model: Fundamentals of Digital Drawing, 3D Modeling, and Visual Programming in Architectural Design’; Wiley, 2019
5. Francis D K Ching, ‘Design Drawing’; Wiley, 2010
6. Roark T Congdon, ‘Architectural Model Building: Tools, Techniques, and Materials’; Fairchild Books, 2010
7. Akiko Busch, ‘The Art of the Architectural Model’; Design Pr, 1991
8. Petra Schmidt, Nicola Stattman, ‘Unfolded: Paper in Design, Art, Architecture and Industry’; Birkhauser, 2009

Course Outcomes (COs):

The students will be able to –

1. Drafting, rendering, modeling and reading of architectural drawings at different scales.(PO1,PO3,PSO1)
2. Identify and explain basic building components and understand their standard measurements. (PO2,PSO3)
3. Identify and understand the techniques of documentation of various built forms and the importance of teamwork in architectural documentation. (PO4,PO5,PO7,PSO3)
4. Understand and apply characteristics of the vernacular architectural style. (PO8,PO9,PSO1,PSO2)
5. Understand and interpret the technique of measuring various buildings ranging from small to big scale.(PO10,PO11,PSO1,PSO2,PSO3)

Course Assessment and Evaluation:

<table>
<tr><td colspan="4">Continuous Internal Evaluation (CIE): 50 Marks</td></tr>
<tr><td colspan="2">Assessment Tool</td><td>Marks</td><td>Course outcomes addressed</td></tr>
<tr><td colspan="2">Review-I</td><td>30</td><td>CO1, CO2, CO3</td></tr>
<tr><td colspan="2">Review-II</td><td>20</td><td>CO3, CO4, CO5</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="2">Semester End Examination (SEE): TERM-WORK</td><td rowspan="3">50</td><td rowspan="3">CO1, CO2, CO3, CO4, CO5</td></tr>
<tr><td>Portfolio</td><td>Model making</td></tr>
<tr><td>30</td><td>20</td></tr>
</table>

NOTE:

- For all Term work examinations, one internal faculty and one external faculty will conduct the exam
- Portfolios must be submitted on the prescribed date announced by the department for all subjects.
- All students must register on the first day of **Term work exams.**

SEMESTER – I

COMMUNICATION SKILLS	
Course Code: 26AR107	**Course Credits: 1 : 0 : 0**
Prerequisite: Nil	**Contact Hours: 15L x15S**
Course coordinator: Humanities Department	

Course Content

UNIT I

Understanding Communication Process:Introduction to communication and its process, forms of communication, levels of communication, barriers to communication, nonverbal communication.

- Pedagogy / Course delivery tools-: Chalk and talk

UNIT II

Effective presentation and group discussion skills, importance of body language.

- Pedagogy / Course delivery tools-: Chalk and talk

UNIT III

Grammar: Parts of speech, usage of tenses, identifying errors in sentences, words commonly confused and misused, usage of Phrasal verbs and Idioms. Introduction to AI-assisted grammar checking, vocabulary enhancement, contextual word selection, language analysis, and writing improvement Using right choice of words in a given context.

- Pedagogy / Course delivery tools-: Chalk and talk

UNIT IV

Writing skills:Paragraph writing, expansion of ideas. Introduction to AI-assisted brainstorming, paragraph organization, coherence analysis, editing, summarization, and writing refinement

- Pedagogy / Course delivery tools-: Chalk and talk

UNIT V

Technical writing:Basics of letter writing, job application letter, preparing a resume / curriculum vita. e-mail, letters. Introduction to AI-assisted professional writing, résumé enhancement, e-mail drafting, formatting, proofreading, and communication etiquette.

- Pedagogy / Course delivery tools-: Chalk and talk

Textbooks:

1. Meenakshi Raman, Sangeeta Sharma, ‘Technical Communication: Principles and Practice’; Oxford University Press, 2011
2. J Thomson, A V Martinet, ‘A Practical English Grammar’; Oxford University Press, 1997
3. Leo Jones, ‘Working in English: Teachers Book’; Cambridge University Press, 1998

4. G S Mudambadithaya, 'Communicative English – For Professional Courses'; Sapna Book House, 2002
5. Grant Taylor, 'English Conversation Practice'; McGraw-Hill Education, 2001
6. A.K Jain, A M Sheikh & Pravin S R Bhatia, 'Professional Communication Skills'; S Chand Publishing, 2001
7. Marsha J Ludden, 'Effective Communication Skills: Essential Skills for Success in Work and Life'; Jist Works, 2001

Course Outcomes (COs):

The students will be able to -

1. Understand the basic concepts in communication. (PO2,PO6;PSO3)
2. Identify effective communication strategies. (PO2,PO5,PO6;PSO3)
3. Develop grammatical accuracy and vocabulary. (PO2;PSO3)
4. Express their ideas and opinions in writing. (PO2,PO5;PSO3)
5. Exhibit proficiency in the English language, communicate effectively and thereby enhance their employability. (PO2,PO5,PO6;PSO3)

Course Assessment and Evaluation:

Continuous Internal Evaluation (CIE): 50 Marks		
Assessment tool	**Marks**	**Course outcomes attained**
Internal Test-I	30	CO1, CO2,
Internal Test-II	30	CO3, CO4
Internal Test-III	30	CO4, CO5
An average of three internal tests shall be taken for 30 marks.		
Other Components	**Marks**	**Course outcomes attained**
Assignment-1	10	CO1, CO2
Assignment-2	10	CO3, CO4, CO5
Semester-End Examination (SEE) (Scaled to 50 Marks)	100	CO1, CO2, CO3, CO4, CO5

SEMESTER – I

INNOVATION & DESIGN THINKING	
Course Code: 26AR108	**Course Credits: 1 : 0 : 0**
Prerequisite: Nil	**Contact Hours: 15Lx15S**
Course coordinator: Asst. Prof. Joyce Lobo	

Course Content

UNIT - I

Introduction to Design Thinking, Design and Business, Design Thinking for Education, Design Thinking Mindsets: Six Key Mindsets, Other Mindsets for Success

- Pedagogy/Course delivery tools:Chalk and Talk, Power point presentation
- Link:https://www.youtube.com/watch?v=dAWwFG3X6u0
  https://www.youtube.com/watch?v=jPvNkR9d6-c

Unit-II

The Design Thinking Process

The Design Thinking Process, The Five Phases of Design Thinking: Empathize Phase, Self-Awareness and Partnerships, Interviews, Observations, Immersion, Research, Empathy Map, Projects, Define Phase, Synthesis: Finding Needs and Insights, Problem Statement, "How Might We" Question.

- Pedagogy/Course delivery tools: Chalk and Talk, Power point presentation
- Link: https://www.youtube.com/watch?v=5CUt2QOsJfc

Unit-III

Ideate Phase and Prototyping

Ideate Phase, Demystifying Creativity, Innovation, and Originality, Ideate Principles, Pre-Brainstorming: Mindset, Warm-Ups, and Practice, Prototype Phase, Rapid Prototyping, Prototyping in Action, Facilitation and Mentorship, Makerspace, Tools, and Materials.

- Pedagogy/Course delivery tools:Chalk and Talk, Power point presentation, Videos

Unit-IV

Testing Phase

Test Phase, Embracing Failure, Testing with End Users, Testing without End Users, Iteration.

- Pedagogy/Course delivery tools: Chalk and Talk, PowerPoint presentation, Videos

Design Thinking Workshop

Unit-V

Design thinking workshop on Empathize, Design, Ideate, Prototype and Test. Introduction to AI-assisted design thinking, prototype visualization, project documentation, and presentation techniques.

- Pedagogy/Course delivery tools: Chalk and Talk, Power point presentation

Link:https://www.youtube.com/channel/UCOjS4V_nBkylZpnlJMJnTw
https://www.youtube.com/watch?v=-FzFk3E5nxM

Text Books:

1. **David Lee,** Design Thinking in the Classroom, Ulysses Press, Korea, 2018
2. **HassoPlattner, Christoph Meinel and Larry Leifer (eds),** "Design Thinking: Understand – Improve – Apply", Springer, 2011

Textbooks:

1. John. R. Karsnitz, Stephen O'Brien and John P. Hutchinson - Engineering Design, Cengage learning (International edition) 2nd edition, 2013.
2. Roger Martin - The Design of Business: Why Design Thinking is the Next Competitive Advantage, Harvard Business Press, 2009.
3. Idris Mootee - Design Thinking for Strategic Innovation: What They Can't Teach You at Business or Design School, John Wiley & Sons 2013.
4. Jeanne Liedtka, Andrew King, Kevin Bennett - Solving Problems with Design Thinking - Ten Stories of What Works (Columbia Business School Publishing) Hardcover –2013.

Web links and Video Lectures (e-Resources):

1. Design Thinking Tools & Methods: https://youtu.be/VTExElJHalk
2. Stanford: Design Thinking Course
   https://www.youtube.com/watch?v=-FzFk3E5nxM
3. What is Design Thinking?
   https://www.youtube.com/watch?v=0V5BwTrQOCs
4. Design Thinking HBR
   https://www.youtube.com/watch?v=z3IbHLfcyWo
5. How it Works?: Design Thinking
   https://www.youtube.com/watch?v=pXtN4y3O35M
6. Design Thinking: Solving Life's Problems
   https://www.youtube.com/watch?v=UQYoWwHg3qA

Course Outcomes (COs):

The students will be able to -

1. Understand design thinking (PO-2, PO-7, PSO-1)
2. Apply empathy in the design thinking process (PO-5, PO-6, PO7, PSO-1,PSO-2)
3. Execute and develop design ideas and a prototype (PO-1, PO-3, PO-7,PSO-1)
4. Analyse and test failures. (PO-1, PO-5, PO7,PSO-1,PSO-2)
5. Create and test a user-centred solution for a simple process using Design Thinking and AI-assisted tools. (PO 1 , PO 7, PSO-1,PSO-3)

Course Assessment and Evaluation:

Continuous Internal Evaluation (CIE): 50 Marks		
Assessment tool	**Marks**	**Course outcomes attained**
Internal Test-I	30	CO1, CO2
Internal Test-II	30	CO3, CO4
Internal Test-III	30	CO4, CO5
Average of the three internal tests shall be taken for 30 marks.		
Other Components	**Marks**	**Course outcomes attained**
Assignment-1	10	CO1, CO2
Assignment-2	10	CO3, CO4, CO5
Semester-End Examination (SEE)	50	CO1, CO2, CO3, CO4, CO5

SEMESTER – I

KANNADA MANASU	
Course Code: 26AR109M	**Course Credits: 2 : 0 : 0**
Prerequisite: Nil	**Contact Hours: 30Lx30S**
Course coordinator: Humanities Department	

Course Content

Unit I

ಲೇಖನಗಳು :ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ: ಹಂಪ ನಾಗರಾಜಯ್ಯ. ಆಡಳಿತ ಭಾಷೆಯಾಗಿ ಕನ್ನಡ

Unit II

ಕಾವ್ಯಭಾಗ (poetry:)ವಚನ,ಕೀರ್ತನೆ,ತತ್ವಪದ

Unit III

ಮಂಕುತಿಮ್ಮನ ಕಗ್ಗ,.ಕುರುಡು ಕಾಂಚಾಣ, ಚೋಮನ ಹಾಡು

Unit IV

ಡಾ|| ಸರ್. ಎಂ. ವಿಶ್ವೇಶ್ವರಯ್ಯ - ವ್ಯಕ್ತಿ ಮತ್ತು ಐತಿಹ್ಯ - ಎ. ಎನ್.ಮೂರ್ತಿರಾಯರು
ಕಥೆÉ (Story), ಪ್ರವಾಸಕಥನ (Travelogue).

Unit V

ಯುಗಾದಿ : ವಸುಧೇಂದ್ರ, ತಾAತ್ರಿಕ ಪದಕೋಶ: ತಾಂತ್ರಿಕ ಹಾಗು ಪಾರಿಭಾಷಿಕ ಕನ್ನಡ ಪದಗಳು.

¥ÀoÀå ¥ÀÅ¸ÀÛPÀ **(Text Book):**

1. ¸ÁA¸ÀÌøwPÀ PÀ£ÀßqÀ Edited by: Dr. H. C. Boralingaiah, Dr. L.Thimeesha, Prof. V. Keshavamurty Prasaranga, V T U, Belagavi, Karnakataka.

ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ: Edited by: Dr. H. C. Boralingaiah, Dr. L.Thimeesha, Prof. V. Keshavamurty Prasaranga, V T U, Belagavi, Karnakataka.

ಪೂರಕ ಪಠ್ಯ (Reference Book):

1. ಕನ್ನಡ ಮನಸು Kannada Prasaranga

ಕಲಿಕೆಯ ಉದ್ದೇಶಗಳು: Course Outcomes (COs):

1. ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡದ ಜೊತೆಗೆ ಕ್ರಿಯಾತ್ಮಕ, ಸಾಹಿತ್ಯ, ಸಾಂಸ್ಕೃತಿ ಮತ್ತು ನಾಡು ನುಡಿಯ ಪರಿಚಯ ಮಾಡಿಕೊಡುವುದು (PO3;PSO3)

2. ಕನ್ನಡ ಭಾಷೆಯ ವ್ಯಾಕರಣ, ಭಾಷಾ ರಚನೆಯ ನಿಯಮಗಳನ್ನು ಪರಿಚಯಿಸುವುದು (PO6;PSO3)
3. ಕನ್ನಡ ಭಾಷಾ ಬರಯದಲ್ಲಿ ಕಂಡು ಬರುವ ದೋಷಗಳು, ಅವುಗಳ ನಿವಾರಣೆ (PO6;PSO3)
4. ಸಾಮಾನ್ಯ ಅರ್ಜಿಗಳು, ಸರ್ಕಾರಿ ಹಾಗೂ ಅರೆ ಸರ್ಕಾರಿ ಪತ್ರ ವ್ಯವಹಾರದ ಬಗ್ಗೆ ಅರಿವು ಮೂಡಿಸುವುದು (PO6;PSO3)
5. ಭಾಷಾಂತರ ಮತ್ತು ಪ್ರಬಂಧ ರಚನೆ ಬಗ್ಗೆ ಆಸಕ್ತಿ ಮೂಡಿಸುವುದು. ಕನ್ನಡ ಭಾಷಾಭ್ಯಾಸ, ಸಾಮಾನ್ಯ ಕನ್ನಡ ಹಾಗು ಆಡಳಿತ ಕನ್ನಡದ ಪದಗಳ ಪರಿಚಯ ಮಾಡಿಕೊಡುವುದು. (PO6;PSO3)

Course Assessment and Evaluation:

Continuous Internal Evaluation (CIE): 50 Marks		
Assessment tool	**Marks**	**Course outcomes attained**
Internal Test-I	30	CO1, CO2
Internal Test-II	30	CO3, CO4
Internal Test-III	30	CO4, CO5
Average of the three internal tests shall be taken for 30 marks.		
Other Components	**Marks**	**Course outcomes attained**
Assignment-1	10	CO1, CO2
Assignment-2	10	CO3, CO4, CO5
Semester-End Examination (SEE)	50	CO1, CO2, CO3, CO4, CO5

SEMESTER – I

KANNADA KALI	
Course Code: 26AR109K	**Course Credits: 2 : 0 : 0**
Prerequisite: Nil	**Contact Hours: 30Lx30S**
Course coordinator: Humanities Department	

Course Content

Unit-I

Chapter 1: Parichaya. Introduction to Kannada Language, Karnataka State and Literature Kannada Bhashe - About Kannada Language, Eight Kannada Authors - jnanpith Awardies

- Pedagogy / Course delivery tools-: Chalk and talk

Unit: II

Chapter 2: Kannada padagalu mattu Vaakyagalu Kannada Words and Sentences naamapadagalu – Sarva namapadagalu – (Nouns -Pronouns) and it's usage in Kannada

Chapter 3: Kannada namavisheshanagalu - (Adjectives-Interrogatives)

Chapter 4: Sambhashaneyalli Prashnarthaka padagalu mattu vaakyagalu (Kannada-Interrogative words and Sentences in Conversation)

Chapter 5: kriyapadagalu, kriyavisheshanagalu-(verb-adverb) Kannada Samyogagalu (Prepositions) - Upasarga (Conjunctions) (Kannada -verb - Adverbs - Prepositions in Conversation)

- Pedagogy / Course delivery tools-: Chalk and talk

Unit: III

Chapter 6: Kannada Bhasheyalli Sambhashanegalu- Conversations in Kannada sambhashaNe: (Conversation With Friends- Teachers, between Friends) (Conversation in Shop, Hostel, Market, Bus and Train) Shabdakosha: Vocabulary – chaTuvaTike: Exercises

Chapter 7: Vicharaneya / Bedikeya vaakyagalu (Enquiry /Request sentences in Conversation)

Chapter 8: Sambhashane Conversation with House Owner and Room mate Shabdakosha – Vocabulary - Exercises to test their knowledge of understanding the Language

- Pedagogy / Course delivery tools-: Chalk and talk

Unit: IV

Chapter 9: Saamanya Sambhashaneyalli Kannadada Padagalu mattu Vaakyagalu. (Kannada Words and Sentences in General Conversation with activities) –Sambhashaneyalli Eakavachana mattu Bhahuvachana- (Singular and Plural nouns) Conversation-Sambhashaneyalli Linga rupagaLu- Genders in Conversation

Chapter 10: Viruddha padagalu /Virodarthaka padagalu (Antonyms) Asamanjasa Uchcharane (Inappropriate Pronunciation)

Chapter 11: Sankhya Vyavasthe (Numbers system) -Samaya /Kalakke Sambhandhisida padhagalu (Words Relating to time) – Dikkugalige sambhadisida padhagalu (Words Relating to Directions)

Chapter 12: Aaharakke sambandisida padagaLu (Names connected with food)

Chapter 13: Manavana shareerada bhagagalu / Angagalu (Parts of the Human body Maanava Sambhandhada da padhagalu (Terms Relating to Human Relationship)

Chapter 14: Maanavana Bhavanegalige sambandisida Padagalu (Words Relating to Human's feelings and Emotions) Vaasada staLakke sambhandisidanthaha padhagalu (Words Relating to place of leaving)

- Pedagogy / Course delivery tools-: Chalk and talk

Unit: V

Chapter 15: Kannada akshara maale- swara akshara – vyanjanaksharagaLu (Kannada alphabets and their practices with pronunciations) Tantragnana mattu AaDalita padagaLu-Technical and administrative worlds in Kannada

- Pedagogy / Course delivery tools-: Chalk and talk

Text Book:

1. **Dr. L.Thimmesh., Prof. Keshava muurthy**, **-** 'BaLake kannada' prasarangaa, Vishveshvaraiah Tantrika vishvavidyalaya.

Reference Book:

1. **Lingadevaru Halemane -** Kannada Kali, Prasaranga Kannada University, Hampi 3rd Edition. 2015

Course Outcomes (COs):

The students will be able to -

1. Develop vocabulary (PO6;PSO3)
2. Identify the basic Kannada language skill (PO6;PSO3)
3. Develop listing & speaking skill in Kannada language (PO6;PSO3)
4. Enrich language skill (PO6;PSO3)
5. Apply Kannada language skill for various purpose (PO6;PSO3)

Course Assessment and Evaluation:

Continuous Internal Evaluation (CIE): 50 Marks		
Assessment tool	**Marks**	**Course outcomes attained**
Internal Test-I	30	CO1, CO2
Internal Test-II	30	CO3, CO4
Internal Test-III	30	CO4, CO5
Average of the three internal tests shall be taken for 30 marks.		
Other Components	**Marks**	**Course outcomes attained**
Assignment-1	10	CO1, CO2
Assignment-2	10	CO3, CO4, CO5
Semester-End Examination (SEE)	50	CO1, CO2, CO3, CO4, CO5

SEMESTER – II

ARCHITECTURAL DESIGN - I	
Course Code: 26AR201	**Course Credits: 0 : 0 : 7**
Prerequisite: Nil	**Contact Hours:7x15P**
Course Coordinator: Assoc. Prof. Meghana Raj	

Course Content

UNIT - I

Introduction to Architectural elements and space standards to create space and form and exhibit through models made of different materials to express the look and feel.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Discussion.

UNIT - II

Undertake the transformation of solids, coordination of form and function.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Discussion.

UNIT - III

Explore the relationship between human feelings and architectural form – observe aspects of design like aesthetics, light, circulation, structures – study activity flow, interview users – analyse and interpret data – form guidelines for design of a basic shelter, an architectural form with a specific function.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Discussion.

UNIT - IV

Concept development, site studies, visualize space and activity, concepts, single line plans and 3D forms, organize space, volumes, massing and frame aesthetics; make a study model.

AI-assisted site analysis, form exploration, spatial layout iterations, and light and shadow studies during the conceptual design stage.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Discussion.

UNIT - V

Basics of preparation of floor plans, elevations and sections, reviews, and revisions

Drafting, rendering, reviews, discussions, revisions of drawings, Preparation of a physical model of the completed design and portfolio of semester work.

Suggestive Typologies: Design of simple building elements such as gate, welcome arch, memorial, edifice, bus shelter and layout of parks, Design of bungalows Architects office, Doctor ‘s clinic.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Discussion.

Textbooks:

1. V S Pramar, ‘Design Fundamentals in Architecture’; Somaiya Publications, 1997
2. Paul Rand, ‘Thoughts on Design’; Chronicle Books, 2014
3. Anthony di Mari, ‘Operative Design: A Catalogue of Spatial Verbs’; Laurence King Publishing, 2013
4. William Lidwell, Kritina Holden, Jill Butler, ‘Universal Principles of Design’; Rockport Publishers, 2nd Edition 2010
5. Thomas Obermeyer, ‘Architectural Drafting: Residential and Commercial’; Glencoe/ McGraw-Hill, 1993
6. Bryan Lawson, ‘How Designers Think’; Architectural Press; 4th Edition, 2005
7. Vincent R Ruggiero, ‘Art of Thinking: A Guide to Critical and Creative Thought’; Pearson; 11th Edition, 2014
8. Piera Scuri, ‘Design of Enclosed Spaces’; Springer, 1995
9. Sandra Reicis, ‘Concept Development and the Design Process’; Bloomsbury Publishing, 2019
10. Bruno Munari, ‘Design as Art’; Penguin UK, 200
11. ."Notes on the Synthesis of Form" by Christopher Alexander,1964, Harvard University Press.
12. " Way of Seeing" by John Berger, 1972, Penguin, UK
13. "Introduction to Architecture",by Frank Ching, James F. Eckler, 2012, John Wiley & Sons, US
14. "Thinking Architecture" by Peter Zumthor, Lars Muller, 1998

Course Outcomes (COs):

The students will be able to –

1. Visualize the relationship between human feelings and architectural form. (PO1, PO2, PO3, PO5, PSO1)
2. Create space and form. (PO1, PO3, PO5, PSO1)
3. Identify and observe the effects of light and shadows, generating ideas. (PO1, PO7, PO9, PSO1, PSO3)
4. Learn the first stage of design development. (PO1, PO2, PO3, PO5, PO7, PO8, PSO1)
5. Represent design through drawings. (PO1, PO3, PO5, PO8, PO9, PO10, PSO1)

Course Assessment and Evaluation:

<table>
<tr><td colspan="4">Continuous Internal Evaluation (CIE): 50 Marks</td></tr>
<tr><td colspan="2">Assessment Tool</td><td>Marks</td><td>Course outcomes addressed</td></tr>
<tr><td colspan="2">Review-I</td><td>20</td><td>CO1, CO2</td></tr>
<tr><td colspan="2">Review-II</td><td>30</td><td>CO3, CO4, CO5</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="2">Semester End Examination (SEE): TERM-WORK</td><td rowspan="3">50</td><td rowspan="3">CO1, CO2, CO3, CO4, CO5</td></tr>
<tr><td>Design</td><td>Drawing</td></tr>
<tr><td>20</td><td>30</td></tr>
</table>

NOTE:

- Literature survey will be a requirement for the Architectural Design study.
- For all Term work examinations, one internal faculty and one external faculty will conduct the exam
- Portfolios must be submitted on the prescribed date announced by the department for all subjects.
- All students must register on the first day of **Term work exam**

SEMESTER – II

BUILDING MATERIALS & CONSTRUCTION TECHNOLOGY –II	
Course Code: 26AR202	**Course Credits: 0 : 0 : 4**
Prerequisite: Nil	**Contact Hours:4x15P**
Course Coordinator: Assoc. Prof. Divya Susanna Ebin	

Course Content

UNIT - I

Doors: Introduction to doors and frames, detailed study of panel doors with glass and mesh, flush doors, batten-ledged and braced doors with joinery details.
Materials- Properties and usage of timber.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Videos.

UNIT - II

Windows: Introduction to timber windows – detail study of fixed and sash windows with joinery details.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Videos.

UNIT - III

Staircase: Introduction to types of staircase. Detail study of R.C.C waist slab staircase and R.C.C folded plate staircase. Construction of RCC Pre-Cast Staircase, Steel staircase and Composite staircase, Timber staircase with joinery details.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Videos.

UNIT - IV

Materials - Role of Timber in building industry. Properties and usage, defects, seasoning and preservation. Students will use AI-assisted platforms to enhance material selection and understand the performance, preservation, and applications of timber in contemporary architecture.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Videos.

UNIT - V

Materials - Study of steel as a construction material including its characteristic properties, application etc.

- Pedagogy / Course delivery tools-: Chalk and talk, PowerPoint Presentation, Videos.

Textbooks:

1. Arora & Bhindra, ‘A Textbook of Building Construction’; Dhanpat Rai Publishing Co, 2010
2. P Purushothama Raj, ‘Building Construction Materials and Techniques’; Pearson, 2016

3. Oscar Tusquets, 'The Staircases: The Architecture of Ascent, Thames and Hudson, 2013
4. Stephen Emmitt, 'Barry's Introduction to Construction of Buildings'; Wiley-Blackwell, 2018
5. Francis D K Ching, 'Building Construction Illustrated'; Wiley, 2012
6. R Barry, 'Construction of Buildings – Vol - 1'; Wiley-Blackwell, 1999
7. W. B Mckay, 'Building Construction'; Pearson Education, 2013

Course Outcomes (COs):

The students will be able to -

1. Describe and draw details of timber doors. (PO1, PO2, PO3, PO5, PO8, PSO1)
2. Understand timber windows. (PO1, PO2, PO3, PO8, PO9, PSO1)
3. Outline the principal components of staircases, their types, and construction methods. (PO1, PO2, PO3, PO5, PO6, PSO1, PSO2, PSO3)
4. Apply timber as building materials based on their properties, behavior, and applications. (PO1, PO2, PO3, PO5, PO6, PSO1)
5. Analyse steel as a trendy building material. (PO1, PO2, PO3, PO5, PO6, PSO1)

Course Assessment and Evaluation:

<table>
<tr><td colspan="3">Continuous Internal Evaluation (CIE): 50 Marks</td></tr>
<tr><td colspan="2">Assessment Tool</td><td>Marks</td><td>Course outcomes addressed</td></tr>
<tr><td colspan="2">Internal Test-I</td><td>30</td><td>CO1, CO2</td></tr>
<tr><td colspan="2">Internal Test-II</td><td>30</td><td>CO3, CO4</td></tr>
<tr><td colspan="2">Internal Test-III</td><td>30</td><td>CO4, CO5</td></tr>
<tr><td colspan="4">Average of the three internal tests shall be taken for 30 marks.</td></tr>
<tr><td colspan="2">Other Components</td><td>Marks</td><td>Course outcomes attained</td></tr>
<tr><td colspan="2">Assignment-1</td><td>10</td><td>CO1, CO2</td></tr>
<tr><td colspan="2">Assignment-2</td><td>10</td><td>CO3, CO4, CO5</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="2">Semester End Examination (SEE): TERM-WORK</td><td rowspan="3">50</td><td rowspan="3">CO1, CO2, CO3, CO4, CO5</td></tr>
<tr><td>Portfolio</td><td>Material study</td></tr>
<tr><td>35</td><td>15</td></tr>
</table>

NOTE:

- For all Term work examinations, one internal faculty and one external faculty will conduct the exam
- Portfolios must be submitted on the prescribed date announced by the department for all subjects.
- All students must register on the first day of **Term work exams.**

SEMESTER – II

ARCHITECTURAL GRAPHICS – II	
Course Code: 26AR203	**Course Credits: 0 : 0 : 3**
Prerequisite: Nil	**Contact Hours: 3x15P**
Course coordinator: Assoc. Prof. Dr. Rashmi N	

Course Content

UNIT - I

Perspective: Understanding fundamental techniques of 1- point perspective drawing to enhance the student's architectural drawing skills and the visual skills. Introduction to basic elements and principles of 1- point perspective drawing. To draw a one- point perspective of their Architectural Design project.

- Pedagogy / Course delivery tools-: Chalk and talk.

UNIT - II

Perspective: Understanding fundamental techniques of 2- point perspective drawing to assist them in appreciating built forms in their design visualization and presentations.Introduction to basic elements and principles of 2- point perspective drawing. To draw a two- point perspective of their Architectural Design project.

- Pedagogy / Course delivery tools-: Chalk and talk.

UNIT - III

Sciography: Learning about light, shade and shadow on basic geometric solids and building elements like window with chajja, niche, steps, door with chajja etc;Sciography: Learning about light, shade and shadow on built forms. Applying the understanding of sciography in architectural design presentations to understand the undulations, depths, hierarchy of surfaces and built forms. Model making using different materials.

- Pedagogy / Course delivery tools-: Chalk and talk.

UNIT - IV

Rendering: Developing an understanding of the importance of color schemes and texture in design presentations and in the design of built environments.Understanding the use of mix media in architectural design plans and elevation rendering and presentations.

- Pedagogy / Course delivery tools-: Chalk and talk.

UNIT - V

Architectural rendering for larger scale Site Plan, elevation and landscape views. Understanding the importance of color theory, color rendering and textures in black and white rendering of site, campus plan, elevation and views. AI to produce high-quality presentation graphics and evaluate different rendering styles for effective architectural communication

- Pedagogy / Course delivery tools-: Chalk and talk.

Textbooks:

1. Robert Gill, 'Rendering with Pen & Ink'; Thames & Hudson Ltd, 1984
2. Milind Mulick, 'Perspective'; Jyotsna Prakashan, 2006
3. C. Leslie Martin, 'Architectural Graphics'; Macmillan Pub Co, 1970
4. Phil Metzger, 'The Art of Perspective: The Ultimate Guide for Artists in Every Medium'; North Light Books, 2007
5. Francis D K Ching, 'Architectural Graphics'; Wiley, 6th Edition 2015

Course Outcomes (COs):

The students will be able to –

1. Understand and draft architectural one-point perspective for their design project.. (PO1,PO3,PO5;PSO1)
2. Integrate the understanding of two point perspective drawing in their architectural design. (PO1,PO3,PO5;PSO1)
3. Draw and understand light, shade and shadows for basic solids and built forms. (PO1,PO3,PO5,PO9;PSO1)
4. Understand and implement the importance of color schemes and textures in design presentations and drawings (PO1,PO3;PSO1)
5. Develop graphical presentations and rendering of site plans and landscapes with the support of AI. (PO1,PO3,PO4,PO5;PSO1)

Course Assessment and Evaluation:

<table>
<tr><td colspan="4">Continuous Internal Evaluation (CIE): 50 Marks</td></tr>
<tr><td colspan="2">Assessment Tool</td><td>Marks</td><td>Course outcomes addressed</td></tr>
<tr><td colspan="2">Internal Test-I</td><td>30</td><td>CO1, CO2</td></tr>
<tr><td colspan="2">Internal Test-II</td><td>30</td><td>CO3, CO4</td></tr>
<tr><td colspan="2">Internal Test-III</td><td>30</td><td>CO4, CO5</td></tr>
<tr><td colspan="4">The average of the three internal tests shall be taken for 30 marks.</td></tr>
<tr><td colspan="2">Other Components</td><td>Marks</td><td>Course outcomes attained</td></tr>
<tr><td colspan="2">Assignment-1</td><td>10</td><td>CO1, CO2</td></tr>
<tr><td colspan="2">Assignment-2</td><td>10</td><td>CO3, CO4, CO5</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="2">Semester End Examination (SEE): TERM-WORK</td><td rowspan="3">50</td><td rowspan="3">CO1, CO2, CO3, CO4, CO5</td></tr>
<tr><td>Portfolio</td><td>Model</td></tr>
<tr><td>40</td><td>10</td></tr>
</table>

NOTE:

- For all Term work examinations, one internal faculty and one external faculty will conduct the exam

- Portfolios must be submitted on the prescribed date announced by the department for all subjects.
- All students must register on the first day of **Term work exams.**

SEMESTER – II

HISTORY OF ARCHITECTURE -II	
Course Code: 26AR204	**Course Credits: 3: 0 : 0**
Prerequisite: Nil	**Contact Hours: 45Lx45S**
Course coordinator: Asst. Prof. Harshita D	

Course Content

UNIT - I

Introduction, Early Christian Architecture – Influences & Arch. Character.
Early Christian Architecture – Basilica church with examples.
Early Christian Architecture – Baptistery & tombs.
Byzantine Architecture – Influences & Arch. Character, Santa Sophia.
Byzantine Architecture – S. Vitale and S. Marks, Venice.

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

UNIT - II

Romanesque - Italy- Influences & Arch. Character.
Romanesque - Italy- Pisa Cathedral and S. Michele.
Romanesque - France- Influences & Arch. Character.
Romanesque - France- Angouleme Cathedral & Abbey –aux- Hommes.

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

UNIT - III

Romanesque - Britain- Influences & Arch. Character.
Romanesque - Peterborough Cathedral.
Gothic Architecture in Britain- Influences & Arch. Character.
Gothic Architecture in Britain- Salisbury Cathedral and Westminster Abbey.

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

UNIT - IV

Gothic Architecture in France- Influences & Arch. Character.
Gothic Architecture in France- Notre Dame Cathedral, Amiens Cathedral.
Late Medieval Architecture in Italy- Influences & Arch. Character.
Late Medieval – Italy - Milan Cathedral, S. Maria del Fiore, Doge's Palace.

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

UNIT - V

Renaissance Architecture in Italy, France, Britain– Introduction, Architectural character, Examples. Baroque architecture in Italy, France, Britain – Introduction, Architectural character. Introduction to AI application in the interpretation of stylistic transformation and spatial organisation through appropriate historical case studies.

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

Reference Books:

1. Francesca Prina, 'The Story of Romanesque Architecture'; Prestel, 2012
2. Thomas Graham Jackson, 'Byzantine and Romanesque Architecture'; Palala Press, 2015
3. West, George Herbert, 'Gothic Architecture in England and France'; Nabu Press, 2010
4. Christy Anderson, 'Renaissance Architecture'; Oxford University Press, 2013
5. Spiro Kostof, 'A History of Architecture: Settings and Rituals'; Oxford University Press, 1995
6. Sir Banister Fletcher, 'A History of Architecture'; CBS Publishers and Distributors, 2003
7. Henri Stirelin, 'Architecture of the World – Romanesque'; Taschen Pub, 1996.
8. Robert Adam, 'Classical Architecture'; Harry N Abrams, 1st edition, 1991.

Course Outcomes (COs):

The students will be able to -

1. Explain the influence of the historical, cultural, and religious aspects in the evolution of early forms of the Christian architecture and of Byzantine architecture. (PO1, PO2, PO3, PO5, PO8, PSO1, PSO2)
2. Explain the inception and development of Romanesque architecture in Europe, with an understanding of the Influences and Architectural character of this period. Describe and illustrate the evolution in various other disciplines during the period. (PO1, PO2, PO3, PO5, PO8, PSO1, PSO2)
3. Identify the influences that led to the evolution of architecture from Romanesque to Gothic style, and critically analyse the changes in architectural character and structural systems over this period and illustrate them with sketches.(PO1, PO2, PO3, PO5, PO8, PSO1)
4. Analyse and compare the knowledge of the Architecture of the Gothic period in France to the Late Medieval period in Italy, and correlate architectural character to other creative disciplines.(PO1, PO2, PO3, PO5, PO8, PSO1, PSO2)
5. Apply the knowledge of evolution for creative disciplines to analyse the shift into Renaissance architecture. Explain and illustrate the architectural characteristics of Baroque Architecture. (PO1, PO2, PO3, PO5, PSO1, PSO2)

Course Assessment and Evaluation

Continuous Internal Evaluation (CIE): 50 Marks		
Assessment Tool	**Marks**	**Course outcomes addressed**
Internal Test-I	30	CO1, CO2
Internal Test-II	30	CO3, CO4
Internal Test-III	30	CO4, CO5
The average of the three internal tests shall be taken for 30 marks.		
Other Components	**Marks**	**Course outcomes attained**
Assignment-1	10	CO1, CO2
Assignment-2	10	CO3, CO4, CO5
Semester End Examination (SEE) (Scaled to 50 Marks)	100	CO1, CO2, CO3, CO4, CO5

SEMESTER – II

ARCHITECTURAL STRUCTURES – II	
Course Code: 26AR205	**Course Credits: 3:0 : 0**
Prerequisite: Nil	**Contact Hours: 45Lx45S**
Course coordinator: Asst. Prof. M. Vijayanand	

Course Content

UNIT - I

Simple Stress and Strain: Introduction Properties of materials Stress, Strain, Hooke's law, Poisson's ratio, Stress – Strain diagram for structural steel &nonferrous materials, Principle of Superposition & Problems.

- Pedagogy / Course delivery tools-: Lecture and Numerical problems.

UNIT - II

Elastic constants and Elongation of bars: Total elongation of tapering bar of circular & rectangular sections, Elongation due to self-weight, Problems on above, elastic constants & relationships among constants and Problems on elastic constants.

- Pedagogy / Course delivery tools-:Lecture and Numerical problems.

UNIT - III

Shear Force and Bending Moment: Relationship between loading, shear force & bending moment, Shear force & bending moment equations - cantilever beams, simply supported beam and overhanging beams with point load, UDL, Moment and Problems on above. AI assisted visualizations of bending moment and shear on beams

- Pedagogy / Course delivery tools-: Lecture , Numerical problems and AI integrated tools.

UNIT - IV

Elastic stability of Compression members: Elastic stability of columns – introduction, short & long columns, Euler's theory on columns, Effective length, slenderness ratio, radius of gyration, buckling load. Introduction to buckling behaviour of compression members using AI-assisted digital tools.

- Pedagogy / Course delivery tools-: Lecture and AI integrated tools

UNIT - V

Buckling loads of columns: Assumption & Euler's buckling load for different end conditions, Limitations of Euler's Theory, Rankine's formula. Problems on above.AI-supported structural optimization and failure prediction to enhance problem-solving and design decision-making

- Pedagogy / Course delivery tools-: Lecture and AI integrated tools

Reference Books:

1. R K Bansal, 'A Textbook of Strength of Materials'; Laxmi Publications, 2018
2. John Case, 'The Strength of Materials; A Treatise on the Theory of Stress Calculations for Engineers'; Arnold, 2014
3. Barry S Onouye Kevin Kane, 'Statics and Strength of Materials For Architecture And Building Construction', Pearson, 2013
4. Syed Shakeeb Ur Rehman, V. Madhava Rao, 'Elements of Civil Engineering & Engineering Mechanics'; Pearson Education, 2011
5. Ferdinand L Singer, Engineering Mechanics, Harper Publication, 1994
6. R V Raikar, Elements of Civil Engineering and Engineering Mechanics, PHI Learning Pvt. Ltd., 2011
7. Alessandro Freddi, Experimental Stress Analysis for Materials and Structures: Stress Analysis Models for Developing Design Methodologies, Springer, 2015

Course Outcomes (COs):

The students will be able to -

1. Understand and calculate stress, strain and Poisson's effect in members using Hooke's law and superposition. (PO2,PO8,PO9;PSO3)
2. Determine and analyze the elongation of bars and the relationships among the elastic constants.(PO8; PSO3)
3. Construct shear force and bending moment diagrams for beams,explore AI-assisted visualization for SFD and BMD.(PO1, PO8,;PSO1,PSO3)
4. Understand and analyze the elastic stability of short and long columns using Euler's theory and AI-enabled simulations.. (PO1,PO8;PSO1,PSO3)
5. Demonstrate and Evaluate the buckling loads of columns using Euler's and Rankine's formulae, supported by AI-based optimization.the design of axial load carrying capacity of columns. (PO1,PO8,PO10;PSO1,PSO3)

Course Assessment and Evaluation

Continuous Internal Evaluation (CIE): 50 Marks		
Assessment Tool	**Marks**	**Course outcomes addressed**
Internal Test-I	30	CO1, CO2
Internal Test-II	30	CO3, CO4
Internal Test-III	30	CO4, CO5
The average of the three internal tests shall be taken for 30 marks.		
Other Components	**Marks**	**Course outcomes attained**
Assignment-1	10	CO1, CO2
Assignment-2	10	CO3, CO4, CO5
Semester End Examination (SEE) (Scaled to 50 Marks)	100	CO1, CO2, CO3, CO4, CO5

SEMESTER – II

SURVEYING AND LEVELING	
Course Code: 26AR206	**Course Credits: 2:0: 0**
Prerequisite: Nil	**Contact Hours: 30L+30S**
Course coordinator: Civil Department, RIT	

Course Content

UNIT - I

Basics of Surveying- Introduction: Definition, necessity, importance of surveying for architecture. Primary division of Surveying. Classification of surveying based on method,purpose, instruments and place of survey. Principles of surveying. Maps and Plans,Topographic maps of survey of India. Scale and its types. Problems on shrunk scale for linear and area computation.

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

UNIT - II

Chain surveying: Definition, purpose, principles of chain surveying. Uses of various instruments in chain surveying. Direct and Indirect ranging methods, Concept of field book, Various types of chains. Advantages and disadvantages. Numerical problems on computing areas of irregular boundary survey lines.

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

UNIT - III

Plane table surveying: Definition, purpose, principle of plane table surveying. Uses of various instruments in plane table surveying. advantages and disadvantages of plane table survey, Set up and orientation of the plane table. Methods of plane table survey: Radiation, Intersection, Traversing methods

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

UNIT - IV

Levelling Survey: Definition, terms used in Levelling survey, classification of levelling survey methods, Various instruments used in levelling survey - Dumpy level, Auto level and Leveling staff, temporary adjustments of dumpy level, Types of Bench marks: GTS, Permanent, temporary and arbitrary bench mark. Numerical problems on computation of RLs by Plane of collimation or HI method. Profile Levelling and cross sectioning survey.

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

UNIT - V

Advanced surveying: Theodolite survey- Definition, principle, uses, parts of transit theodolite, measurement of horizontal angles by repetition and reiteration methods, measurement of vertical angles. Capabilities of total station and its uses. Contour survey-definition, terms and uses of contours, characteristics of contours.AI applications in

automated surveying, mapping, and decision-making for site planning and infrastructure development

- Pedagogy / Course delivery tools-: PowerPoint Presentation, Chalk and talk.

Reference Books:

1. John Clancy, 'Site Surveying and Levelling'; Hodder Arnold, 1981
2. B.C. Punmia, Ashok Kumar Jain, Ashok Kumar Jain, 'Surveying - Vol 1'; Laxmi Publications, 2016
3. Charles Davies, 'Elements of Surveying, and Navigation: With Descriptions of the Instruments and the Necessary Tables'; Palala Press, 2016
4. R. Subramanian, 'Fundamentals of Surveying and Levelling'; Oxford University Press, 2014
5. S K Duggal, 'Surveying - Vol 1'; McGraw Hill Educations, 2019
6. T P Kanetkar, SV Kulkarni, 'Surveying and Levelling – Vol 1&2'; Pune Vidyarthi Griha Prakashan, 2006
7. K R Arora, 'Surveying'; Standard Book House, 2018

Course Outcomes (COs):

The students will be able to -

1. Describe the types and classification of surveying and topographical maps.(PO1, PO4, PO8, PO9, PSO3)
2. Demonstrate uses of chains and tapes for field measurements.(PO1, PO4, PO8, PO9, PSO3)
3. Discuss the applications of plane table survey.(PO1, PO4, PO8, PO9, PSO3)
4. Practically carry out reduced levels and plot profiles on ground.(PO1, PO4, PO8, PO9, PSO3)
5. Describe and discuss uses of theodolite, contours and total station and GIS for surveying.(PO1, PO4, PO8, PO9, PSO3)

Course Assessment and Evaluation

Continuous Internal Evaluation (CIE): 50 Marks		
Assessment Tool	**Marks**	**Course outcomes addressed**
Internal Test-I	30	CO1, CO2
Internal Test-II	30	CO3, CO4
Internal Test-III	30	CO4, CO5
The average of the three internal tests shall be taken for 30 marks.		
Other Components	**Marks**	**Course outcomes attained**
Assignment-1	10	CO1, CO2
Assignment-2	10	CO3, CO4, CO5
Semester End Examination (SEE) (Scaled to 50 Marks)	100	CO1, CO2, CO3, CO4, CO5

SEMESTER – II

COMPUTERS IN ARCHITECTURE -I	
Course Code: 26AR207	**Course Credits: 0:0:2**
Prerequisite: Nil	**Contact Hours: 2x15P**
Course coordinator: System Analyst Er. Aruna Gopal	

Course Content

UNIT - I

User Interface essentials: View settings, navigations, orbit, save. Draw Tools: Basic shapes using draw tools, Unit setup, push-pull, follow me

- Pedagogy / Course delivery tools-: -: Live Demonstration, Hands-on Practical Session.

UNIT - II

Modify: Scale, rotate, Copy, Mirror Measurements: Protractor, tape, Divide, array.

- Pedagogy / Course delivery tools-: -: Live Demonstration, Hands-on Practical Session.

UNIT - III

Views: Camera views, Scenes, Walkthrough. Styles: Preset styles, face & edge styles.

- Pedagogy / Course delivery tools-: -: Live Demonstration, Hands-on Practical Session.

UNIT - IV

Material: Applying colors & Textures, creating new materials.Shadows: Shadow & fog settings.

- Pedagogy / Course delivery tools-: -: Live Demonstration, Hands-on Practical Session.

UNIT - V

Presentation: Section planes, orthogonal views, background styles.Output: Save as images, Walkthrough as Video file. AI to improve the quality of architectural presentations, optimize rendering workflows, and produce professional visual outputs while maintaining design accuracy and original

- Pedagogy / Course delivery tools-: -: Live Demonstration, Hands-on Practical Session.

Reference Books:

1. Alexander C. Schreyer, ‘Architectural Design with SketchUp: 3D Modeling, Extensions, BIM, Rendering, Making, and Scripting’; Wiley, 2015
2. Laurent Brixius ‘Google SketchUp Workshop: Modeling, Visualizing, and Illustrating’; Routledge, 2012
3. John G Brock, ‘SketchUp for Builders: A Comprehensive Guide for Creating 3D Building Models Using SketchUp’; Wiley, 2018
4. Matt Donley, ‘SketchUp to Lay Out: The essential guide to creating construction

documents with SketchUp Pro & Lay Out'; Biz found, LLC 2015
5. Michael Brightman, 'The SketchUp Workflow for Architecture: Modeling Buildings, Visualizing Design, and Creating Construction Documents with SketchUp Pro and Lay Out; John Wiley & Sons, 2018
6. Daniel Tal, 'Google SketchUp for Site Design: A Guide to Modeling Site Plans, Terrain and Architecture; Wiley; 2009

Course Outcomes (COs):

The students will be able to -

1. Identify the user interface essentials and demonstrate basic navigation. (PO1, PO3, PSO1)
2. Apply modify tools and use measure tools to model the design project. (PO1,P03,PO5, PO10, PSO1,PSO3)
3. Apply different cameras and walk through settings to their architectural design. (PO1,P03,PO5, PO10,PSO1,PSO3)
4. Integrate their understanding of materials and shadows to their architectural design. (PO1,P03,PO5, PO10,PSO1, PSO2, PSO3)
5. Create professional architectural presentations and and evaluate AI-assisted rendering workflows to enhance visual quality(PO1,P03,PO5, PO10, PSO1, PSO2, PSO3)

Course Assessment and Evaluation:

<table>
<tr><td colspan="4">Continuous Internal Evaluation (CIE): 50 Marks</td></tr>
<tr><td colspan="2">Assessment Tool</td><td>Marks</td><td>Course outcomes addressed</td></tr>
<tr><td colspan="2">Review-I</td><td>30</td><td>CO1, CO2, CO3</td></tr>
<tr><td colspan="2">Review-II</td><td>20</td><td>CO4, CO5</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="2">Semester End Examination (SEE): TERM-WORK</td><td rowspan="3">50</td><td rowspan="3">CO1, CO2, CO3, CO4, CO5</td></tr>
<tr><td>Portfolio submission</td><td>Walk-through / 3D Model</td></tr>
<tr><td>40</td><td>10</td></tr>
</table>

NOTE:

- For all Term Work one internal faculty and one external faculty will conduct the exam.
- Portfolios have to be submitted on a prescribed date announced by the department for the viva voce subjects and term work subjects.
- All students have to register on the first day of **Term work exams.**

SEMESTER – II

ART APPRECIATION AND MEASURED DRAWING	
Course Code: 26AR208	**Course Credits: 2 : 0 : 0**
Prerequisite: Nil	**Contact Hours: 30L+30S**
Course Coordinator: Assoc. Prof. Dr. Rashmi N.	

Course Content

UNIT - I

Role of Art- Introduction of Art, Architecture, role of art in architecture. Role and meaning of artist, architect and craftsperson. Appreciating various forms of art through photography, painting and sketching of the views of artisan at work studio, to develop visual appreciation and documentation skills through observation, sketching, painting and photography

- Pedagogy / Course Delivery Tools: PowerPoint Presentation, Chalk and Talk

UNIT - II

Types of Art- Fine Art, Visual Art, Performing Art, Spatial Art, Folk Art, Commercial Art, Industrial Art, Abstract Art, Temporal Art, Pop Art, Digital Art. Introduction to types of Architecture. Documentation through sketching, painting, photography of different styles and typologies of architecture.

- Pedagogy / Course Delivery Tools: PowerPoint Presentation, Chalk and Talk

UNIT - III

Art Criticism-Introduction to types of criticism like Descriptive, Interpretive and evaluative criticism. Learning about different isms in art like Impressionism, Expressionism, Dadaism, Fauvism, Cubism etc. Introduction to the principles of art criticism, methods of evaluating works of art, and developing critical appreciation through observation and analysis.

- Pedagogy / Course Delivery Tools: PowerPoint Presentation, Chalk and Talk.

UNIT - IV

Study of Visual Arts with emphasis on nature and characteristics of Painting, Photography, Sculpture and Architecture etc., including their different forms and cultural significance.

- Pedagogy / Course Delivery Tools: PowerPoint Presentation, Chalk and Talk

UNIT - V

Study of Performing Arts with emphasis on nature and characteristics of Literature, drama, dance, music, Film etc., including their different forms and cultural significance.Introduction of AI applications in Fine arts.

- Pedagogy / Course Delivery Tools: PowerPoint Presentation, Chalk and Talk

Reference Books:

1. Pamela Gordon, ‘Art Matters: A Contemporary Approach to Art Appreciation’;

Oxford University Press, 2019
2. Heather Galloway Vickers, ‘Workbook for Art Appreciation: Exercises in Understanding Art Concepts and Theory’; Heather Galloway Vickers, 2015
3. Carolyn Schlam, ‘The Joy of Art: How to Look At, Appreciate, and Talk about Art’, Allworth, 2020
4. Lois Fichner- Rathus, ‘Understanding Art’; Cengage Learning, 2015
5. S Abid Husain, ‘The National Culture of India’; National Book Trust, India – 2018
6. Antony Mason, ‘Art of the Western World: From Prehistory to the 21st Century’; Book House, 2010
7. Arthur Llewellyn Basham, ‘The Wonder That was India’; Taplinger Pub Co, 1968
8. Fred S Kleiner, Gardner's Art through the Ages: A Global History’; Cengage Learning 2014
9. IDEO, ‘Human Centered Design Toolkit’; Author House, 2011
10. Ilay Cooper, John Gillow, ‘Arts and Crafts of India’; Thames and Hudson, 1996
11. Michael Braungart, William McDonough, ‘Cradle to Cradle: Remaking the Way We Make Things; Vintage Digital 2009
12. Paul Johnson, ‘Art: A new History’; Weidenfeld & Nicolson, 2003
13. Yashodhara Dalmia, ‘Contemporary Indian Art: Other Realities’; The Marg Foundation, 2003
14. Julia McMorrough, ‘The Architecture Reference & Specification Book: Everything Architects Need to Know Every Day’; Rockport Publishers, 2013
15. Francis D K Ching, ‘A Visual Dictionary of Architecture’; John Wiley & Sons, 2011

Course Outcomes (COs):

The students will be able to -

1. Describe and differentiate visual art, performing art, craft and architecture, and explain the role of art in architecture. (PO1,PO2,PO3;PSO2)
2. Classify and compare the types of visual art, and interpret their relevance to architecture. (PO1,PO2,PO3;PSO2)
3. Analyze and critique works of art using descriptive, interpretive and evaluative criticism, with reference to the historical development of art. (PO2,PO3,PO7;PSO1,PSO2)
4. Compare and relate architecture to the allied fields of visual art, and examine their forms and cultural significance. (PO1,PO2,PO3;PSO1,PSO2)
5. Compare and relate architecture to the allied fields of performing arts, and examine their forms and cultural significance. (PO2,PO3,PO5;PSO1,PSO2)

Course Assessment and Evaluation

Continuous Internal Evaluation (CIE): 50 Marks		
Assessment Tool	**Marks**	**Course outcomes addressed**
Internal Test-I	30	CO1, CO2
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Other Components	**Marks**	**Course outcomes attained**
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Semester End Examination (SEE) (Scaled to 50 Marks)	100	CO1, CO2, CO3, CO4, CO5