



GU/Acad –PG/BoS -NEP/2026-27/343

Date: 18.08.2026

CIRCULAR

The University has notified Ordinance OC-88 relating to the Five-Year Choice Based Credit System Programme for Bachelor of Architecture (B.Arch.) Degree of Goa University, with effect from the Academic Year 2026–2027.

The syllabus for Semester I & II of the **Bachelor of Architecture (B.Arch.)** Programme, as approved by the Academic Council in its meeting held on 24th April, 12th & 13th May 2026 is attached.

The Dean, Faculty of Planning, Architecture & Design and Principal of affiliated Engineering Colleges offering the **Bachelor of Architecture (B.Arch.)** Programme are requested to take note of the above and bring the contents of the Circular to the notice of all concerned.

(Ashwin V. Lawande)
Deputy Registrar – Academic

To,

1. The Dean, Faculty of Planning, Architecture & Design, Goa University.
2. The Principal of affiliated Engineering Colleges offering the Bachelor of Architecture (B.Arch.) Programme.

Copy to:

1. Chairperson, BoS in Architecture & Interior Design, Goa University.
2. Controller of Examinations, Goa University.
3. Assistant Registrar Examinations (Technical and Allied), Goa University
4. Directorate of Internal Quality Assurance, Goa University for uploading the Syllabus on the University website.

GOA UNIVERSITY

Bachelor of Architecture (B. Arch.)

Effective from AY 2026-27

ABOUT THE PROGRAMME

The Bachelor of Architecture (B.Arch.) is an undergraduate degree Programme that offers a comprehensive and progressive education in architecture and the built environment. It is designed to cultivate architects capable of critically engaging with the challenges of a rapidly transforming world shaped by climate change, technological advancement, and evolving social contexts.

Situated in Goa, with its layered historical legacy and ongoing contemporary transformations, the Programme treats the region as a living laboratory for learning, equipping students to tackle diverse architectural, cultural, and ecological challenges globally.

The Programme provides a strong foundation in architectural design, building materials and construction technology, history and theory of architecture, representation and communication, social and ecological studies, and professional practice.

The Programme combines studio-based design learning with theoretical instruction, technical training, fieldwork, and research, enabling students to develop creative, analytical, digital, and practical skills, and to critically evaluate architectural contexts and synthesise design responses necessary for professional architectural practice.

OBJECTIVES OF THE PROGRAMME

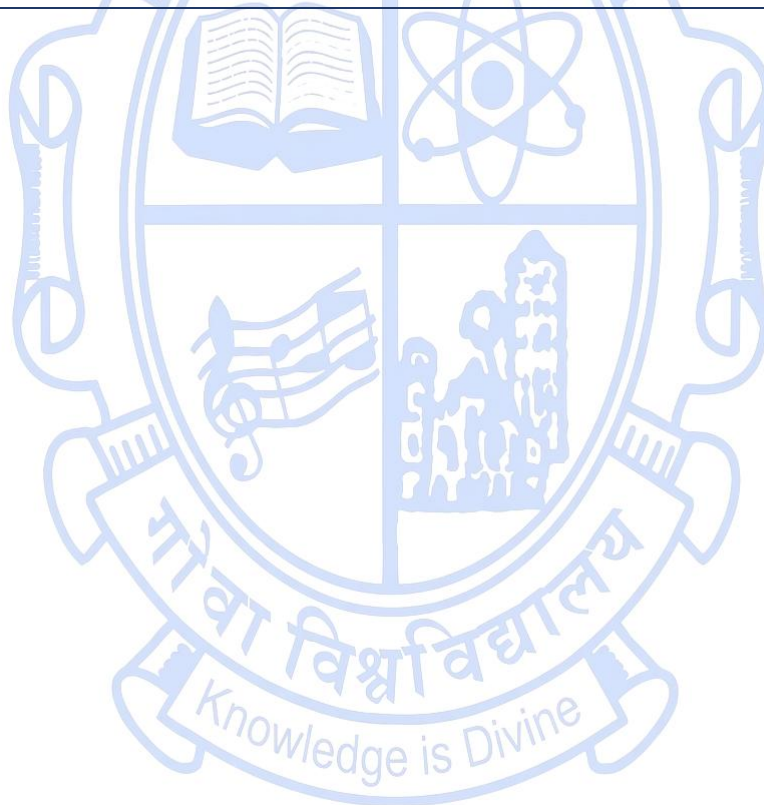
1. To develop design competence by training students to conceive, analyse, and communicate architectural ideas through creative and context-responsive solutions.
2. To build technical and environmental understanding of construction systems, materials, structures, and sustainable practices in the built environment.
3. To cultivate historical, theoretical, and critical awareness of architecture and urbanism, enabling informed and reflective practice.
4. To prepare students for professional practice by equipping them with skills in project execution, collaboration, ethics, and engagement with societal and regulatory frameworks.

PROGRAMME SPECIFIC OUTCOMES (PSO)	
PSO 1.	Design Ability: Ability to conceptualize and create architectural designs that critically and sensitively respond to functional, cultural, and ecological contexts.
PSO 2.	Technical Competence: Ability to demonstrate knowledge of building materials, construction systems, and structural principles in design.
PSO 3.	Ecological Sensibility/Responsiveness: Ability to integrate climate-responsive and sustainable design strategies in the built environment.
PSO 4.	Historical and Theoretical Understanding: Ability to interpret and demonstrate knowledge of architectural history and theory in design thinking.
PSO 5.	Representation Skills: Ability to communicate design ideas effectively through drawings, models, digital tools, and visual media.
PSO 6.	Contextual Awareness: Ability to understand and critically respond to various conditions, landscapes, and socio-cultural contexts.
PSO 7.	Research and Critical Thinking: Ability to undertake research, analyse data, and critically evaluate and synthesize architectural solutions.
PSO 8.	Professional Practice: Ability to understand and integrate professional ethics, codes and regulations, and collaborative processes in architectural practice.

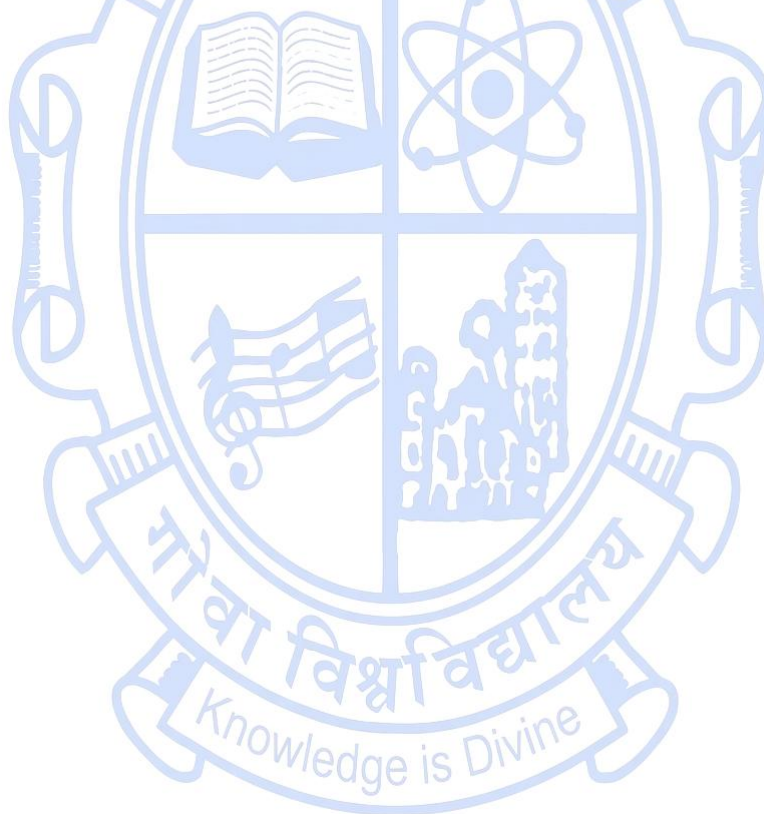
Table Showing Distribution of Courses

Semester	Professional Core Course	Building Science & Applied Engineering	Professional Elective	Open Elective	Professional Ability Enhancement Course	Skill Enhancement	TOTAL
	PC	BS&AE	PE	OE	PAEC	SEC	Credits
I	12(1) 3(1) 3(1)	4(1) 3(1)	---	---	----	3(1)	28
II	12(1) 3(1) 3(1)	4(1) 3(1)	---	---	----	3(1)	28
III	12(1) 3(1)	4(1) 3(1)	3(1)	---	----	3(1)	28
IV	12(1) 3(1)	4(1) 3(1) 3(1)	3(1)	---	----	----	28
V	12(1) 3(1)	4(1) 3(1)	3(1)	3(1)	----	----	28
VI	12(1) 3(1)	4(1)	3(1)	3(1)	3(1)	----	28
VII	16(1) 3(1)	3(1)	3(1)	---	3(1)	----	28
VIII					28(1)		28
IX	12(1) 3(1)	----	3(1)	3(1)	7(1)	----	28
X	19(1)	----	3(1)	----	3(1)	3(1)	28
TOTAL	149	45	21	9	44	12	280

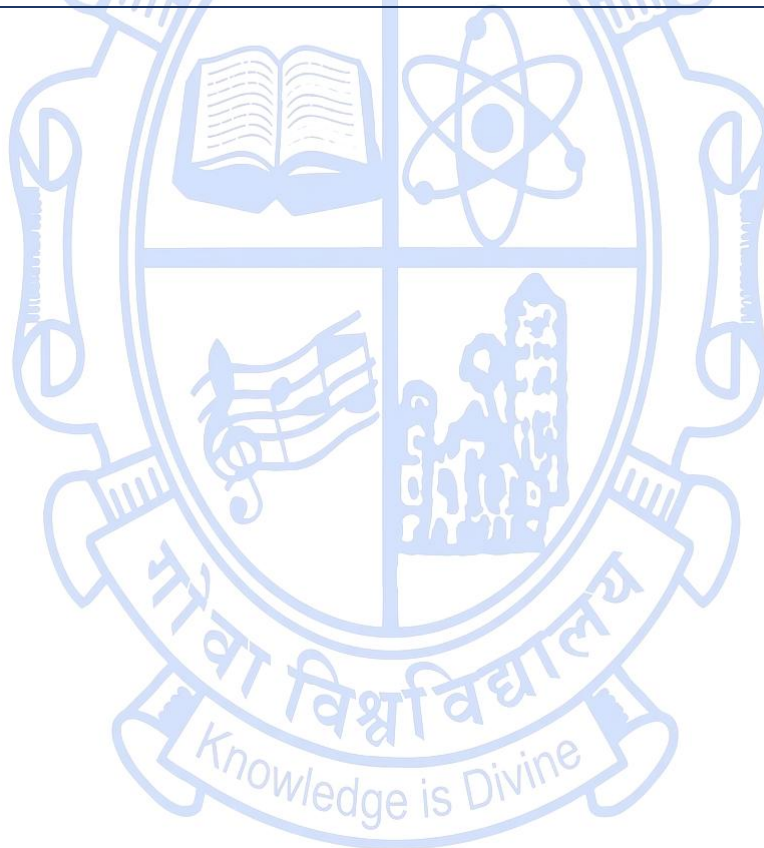
SEMESTER I									
Sr. No.	CODE	COURSE CATEGORY	COURSE NAMES	HRS/ WK	EXAM TYPE	WEIGHTAGE			CREDITS
						INT.	EXT.	TOT.	
1	BAR- 101	PC	Basic Design	12	Project/ Portfolio Assessment & Viva-Voce	50	50	100	12
2	BAR- 102	PC	Society & Architecture	3	Project/ Portfolio Assessment & Viva-Voce	50	50	100	3
3	BAR- 103	PC	Architectural Graphics and Technical Drawings - I	3	Project/ Portfolio Assessment & Viva-Voce	50	50	100	3
4	BAR- 111	BS & AE	Building Construction I	4	Project/ Portfolio Assessment & Viva-Voce	50	50	100	4
5	BAR- 112	BS & AE	Building Structures I	3	Written Exam	50	50	100	3
6	BAR- 145	SEC	Communications Skills	3	Project/ Portfolio/ Report Assessment	50	50	100	3
TOTAL CREDITS = 28									



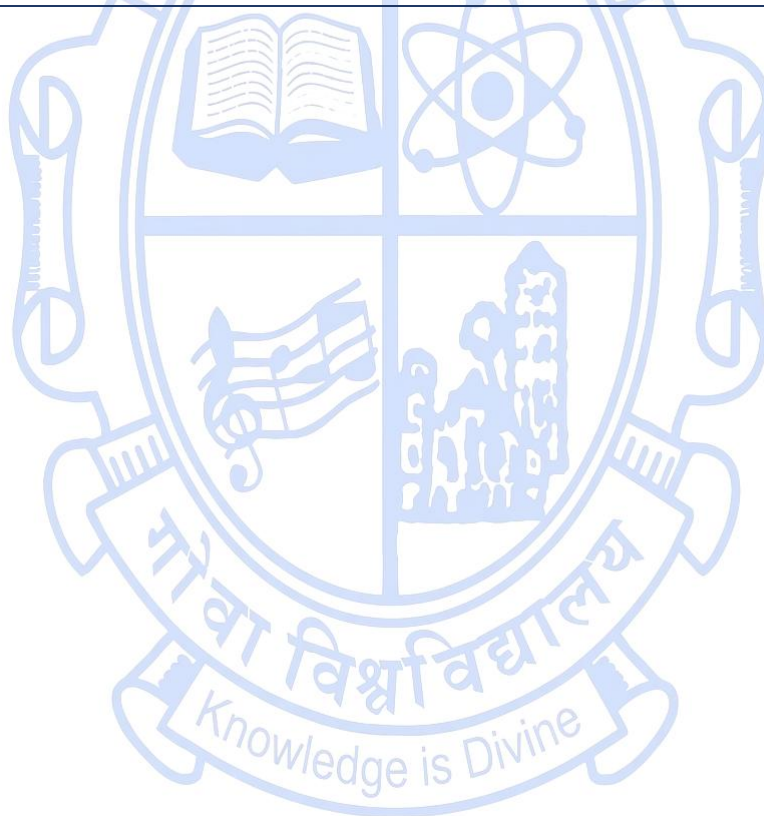
SEMESTER II									
Sr. No.	CODE	COURSE CATEGORY	COURSE NAMES	HRS/ WK	EXAM TYPE	WEIGHTAGE			CREDITS
						INT.	EXT.	TOT.	
1	BAR- 151	PC	Architectural Design I	12	Project/ Portfolio Assessment & Viva-Voce	50	50	100	12
2	BAR- 152	PC	Architectural History I	3	Project/ Portfolio Assessment & Viva-Voce	50	50	100	3
3	BAR- 153	PC	Architectural Graphics and Technical Drawings -II	3	Project/ Portfolio Assessment & Viva-Voce	50	50	100	3
4	BAR- 161	BS & AE	Building Construction II	4	Project/ Portfolio Assessment & Viva-Voce	50	50	100	4
5	BAR- 162	BS & AE	Building Structures II	3	Written Exam	50	50	100	3
6	BAR- 195	SEC	Digital Communications I	3	Project/ Portfolio/ Report Assessment	50	50	100	3
TOTAL CREDITS = 28									



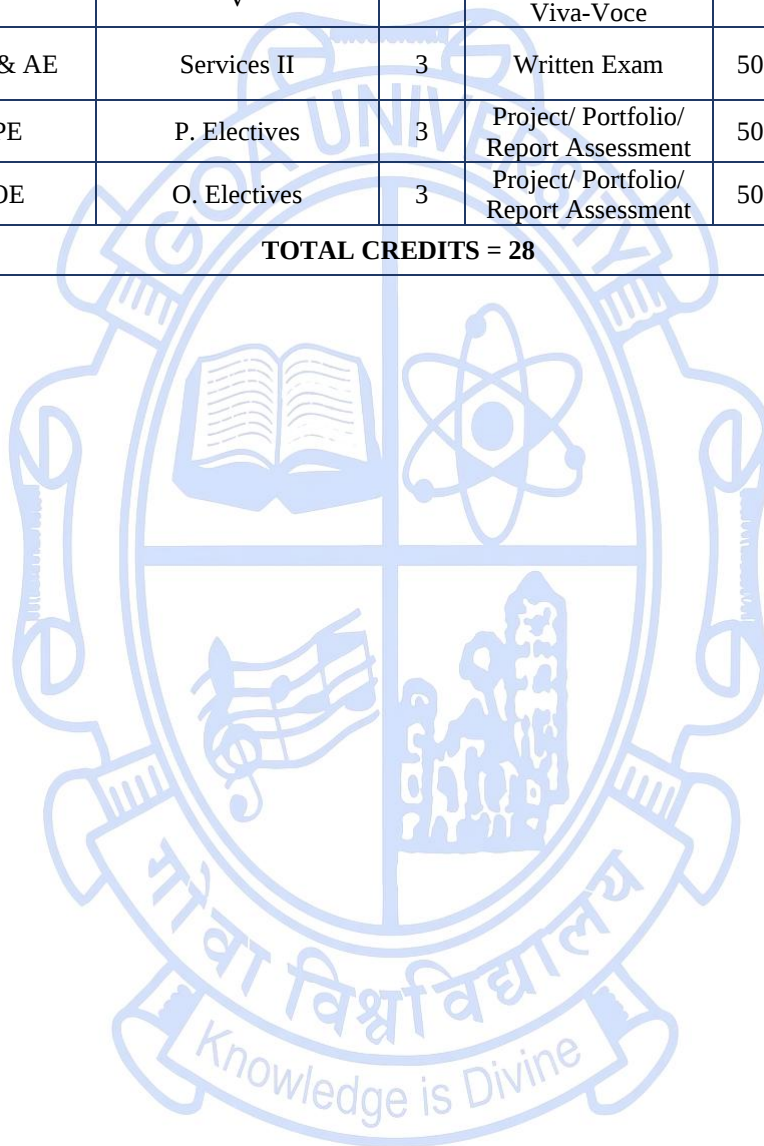
SEMESTER III									
Sr. No.	CODE	COURSE CATEGORY	COURSE NAMES	HRS/ WK	EXAM TYPE	WEIGHTAGE			CREDITS
						INT.	EXT.	TOT.	
1	BAR- 201	PC	Architectural Design - II	12	Project/ Portfolio Assessment & Viva-Voce	50	50	100	12
2	BAR- 202	PC	Architectural History II	3	Project/ Portfolio Assessment & Viva-Voce	50	50	100	3
3	BAR- 211	BS & AE	Building Construction III	4	Project/ Portfolio Assessment & Viva-Voce	50	50	100	4
4	BAR- 212	BS & AE	Building Structures III	3	Written Exam	50	50	100	3
5	BAR- 221	PE	P. Electives	3	Project/ Portfolio/ Report Assessment	50	50	100	3
6	BAR- 245	SEC	Digital Communications II	3	Project/ Portfolio/ Report Assessment	50	50	100	3
TOTAL CREDITS = 28									



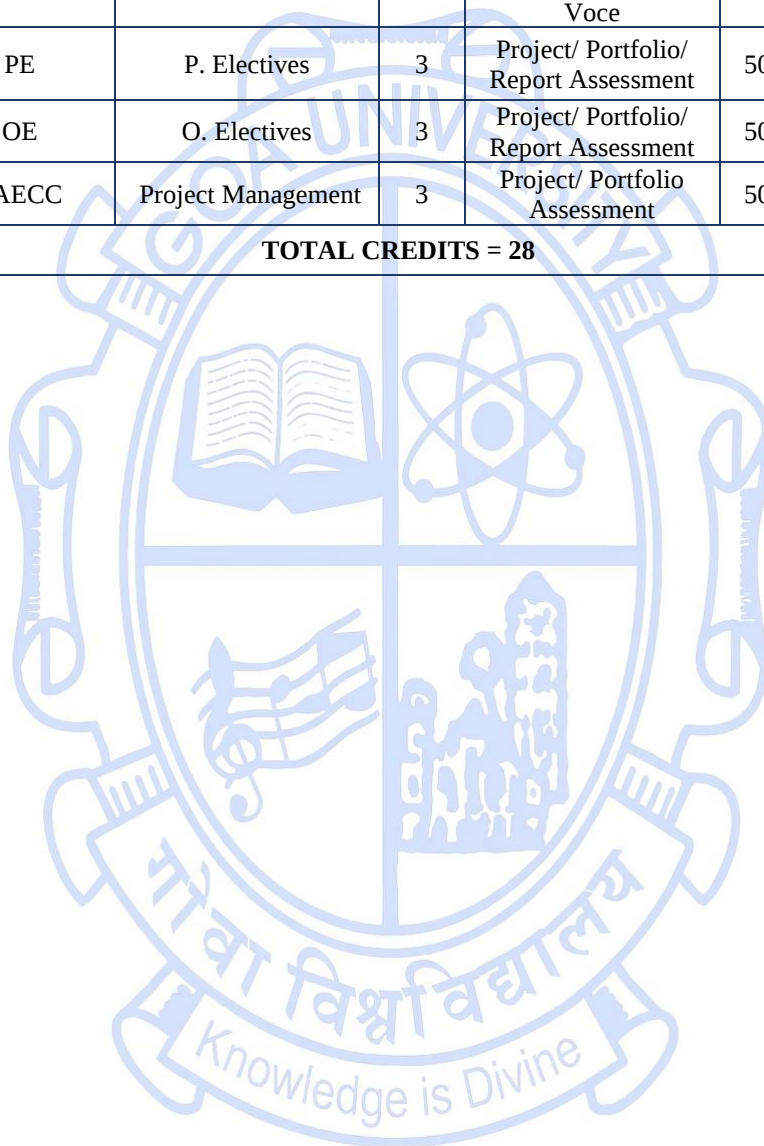
SEMESTER IV									
Sr. No.	CODE	COURSE CATEGORY	COURSE NAMES	HRS/ WK	EXAM TYPE	WEIGHTAGE			CREDITS
						INT.	EXT.	TOT.	
1	BAR- 251	PC	Architectural Design III (Include Module on Landscape and Site Planning)	12	Project/ Portfolio Assessment & Viva-Voce	50	50	100	12
2	BAR- 252	PC	Architectural History III	3	Project/ Portfolio Assessment & Viva-Voce	50	50	100	3
3	BAR- 261	BS & AE	Building Construction IV	4	Project/ Portfolio Assessment & Viva-Voce	50	50	100	4
4	BAR- 262	BS & AE	Services I	3	Written Exam	50	50	100	3
5	BAR- 263	BS & AE	Climatology	3	Project/ Portfolio Assessment & Viva-Voce	50	50	100	3
6	BAR- 271	PE	P. Electives	3	Project/ Portfolio/ Report Assessment	50	50	100	3
TOTAL CREDITS = 28									



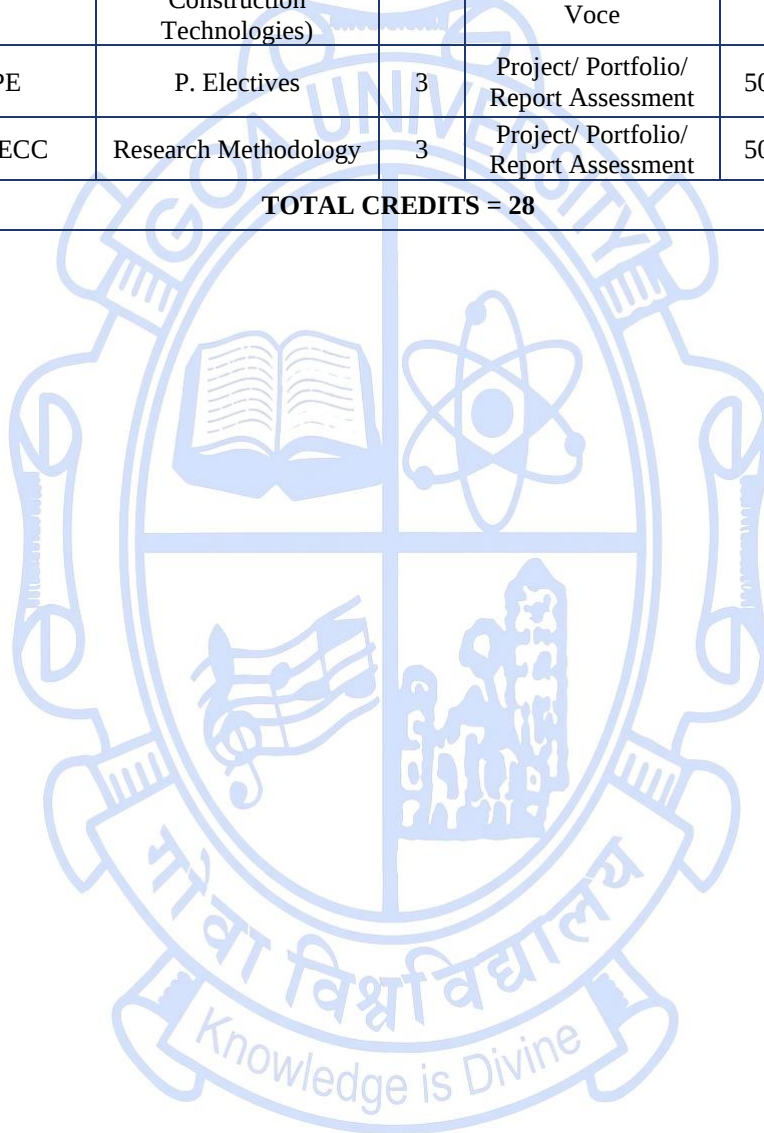
SEMESTER V									
Sr. No.	CODE	COURSE CATEGORY	COURSE NAMES	HRS/ WK	EXAM TYPE	WEIGHTAGE			CREDITS
						INT.	EXT.	TOT.	
1	BAR- 301	PC	Arch. Design IV (Include a module on advanced site planning)	12	Project/ Portfolio Assessment & Viva-Voce	50	50	100	12
2	BAR- 302	PC	Architectural History IV	3	Project/ Portfolio Assessment & Viva-Voce	50	50	100	3
3	BAR- 311	BS & AE	Building Construction V	4	Project/ Portfolio Assessment & Viva-Voce	50	50	100	4
4	BAR- 312	BS & AE	Services II	3	Written Exam	50	50	100	3
5	BAR- 321	PE	P. Electives	3	Project/ Portfolio/ Report Assessment	50	50	100	3
6	BAR- 331	OE	O. Electives	3	Project/ Portfolio/ Report Assessment	50	50	100	3
TOTAL CREDITS = 28									



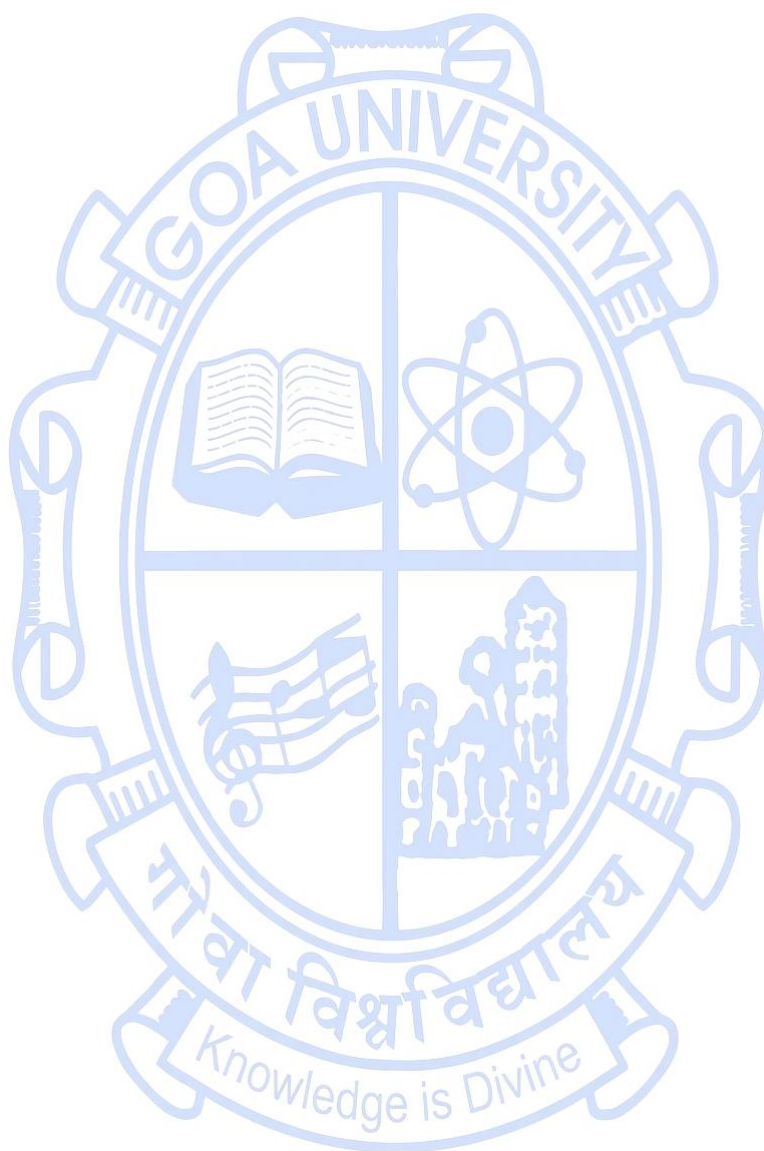
SEMESTER VI									
Sr. No.	CODE	COURSE CATEGORY	COURSE NAMES	HRS/ WK	EXAM TYPE	WEIGHTAGE			CREDITS
						INT.	EXT.	TOT.	
1	BAR- 351	PC	Architectural Design V	12	Project/ Portfolio Assessment & Viva-Voce	50	50	100	12
2	BAR- 352	PC	Architectural Theory and Criticism	3	Project/ Portfolio Assessment & Viva-Voce	50	50	100	3
3	BAR- 311	BS & AE	Working Drawings	4	Project/ Portfolio Assessment & Viva-Voce	50	50	100	4
4	BAR- 321	PE	P. Electives	3	Project/ Portfolio/ Report Assessment	50	50	100	3
5	BAR- 331	OE	O. Electives	3	Project/ Portfolio/ Report Assessment	50	50	100	3
6	BAR- 341	PAECC	Project Management	3	Project/ Portfolio Assessment	50	50	100	3
TOTAL CREDITS = 28									



SEMESTER VII									
Sr. No.	CODE	COURSE CATEGORY	COURSE NAMES	HRS/ WK	EXAM TYPE	WEIGHTAGE			CREDITS
						INT.	EXT.	TOT.	
1	BAR- 401	PC	Architectural Design VI (Community Housing Studio)	16	Project/ Portfolio Assessment & Viva-Voce	50	50	100	16
2	BAR- 402	PC	Specifications, Cost Estimation And Budgeting	3	Written Exam	50	50	100	3
3	BAR- 411	BS & AE	Building Construction VI (Advances Construction Technologies)	3	Project/ Portfolio Assessment & Viva-Voce	50	50	100	3
4	BAR- 421	PE	P. Electives	3	Project/ Portfolio/ Report Assessment	50	50	100	3
5	BAR- 441	PAECC	Research Methodology	3	Project/ Portfolio/ Report Assessment	50	50	100	3
TOTAL CREDITS = 28									



SEMESTER VIII									
Sr. No.	CODE	COURSE CATEGORY	COURSE NAMES	HRS/ WK	EXAM TYPE	WEIGHTAGE			CREDITS
						INT.	EXT.	TOT.	
1	BAR- 491	PAECC	Professional Training	-	Project/ Portfolio Assessment & Viva-Voce	50	50	100	28
TOTAL CREDITS = 28									



SEMESTER IX									
Sr. No.	CODE	COURSE CATEGORY	COURSE NAMES	HRS/ WK	EXAM TYPE	WEIGHTAGE			CREDITS
						INT.	EXT.	TOT.	
1	BAR- 501	PC	Architectural Design VII	12	Project/ Portfolio Assessment & Viva-Voce	50	50	100	12
2	BAR- 502	PC	Urban Design and Planning	3	Project/ Portfolio Assessment & Viva-Voce	50	50	100	3
3	BAR- 521	PE	P. Electives	3	Project/ Portfolio/ Report Assessment	50	50	100	3
4	BAR- 531	OE	O. Elective	3	Project/ Report Assessment	50	50	100	3
5	BAR- 541	PAECC	Dissertation	7	Project/ Report Assessment & Viva-Voce	50	50	100	7
TOTAL CREDITS = 28									

SEMESTER X									
Sr. No.	CODE	COURSE CATEGORY	COURSE NAMES	HRS/ WK	EXAM TYPE	WEIGHTAGE			CREDITS
						INT.	EXT.	TOT.	
1	BAR- 551	PC	Architectural Design Thesis	19	Project/ Portfolio Assessment & Viva-Voce	50	50	100	19
2	BAR- 571	PE	P. Electives	3	Project/ Portfolio/ Report Assessment	50	50	100	3
3	BAR- 591	PAECC	Professional Practice	3	Project/ Portfolio Assessment & Viva-Voce	50	50	100	3
4	BAR- 595	SEC	Entrepreneurship Skill for Architects/ Portfolio Making	3	Project/ Portfolio/ Report Assessment	50	50	100	3
TOTAL CREDITS = 28									

Cognitive Levels	Notations
K1	Remembering
K2	Understanding
K3	Applying
K4	Analyzing
K5	Evaluating
K6	Creating

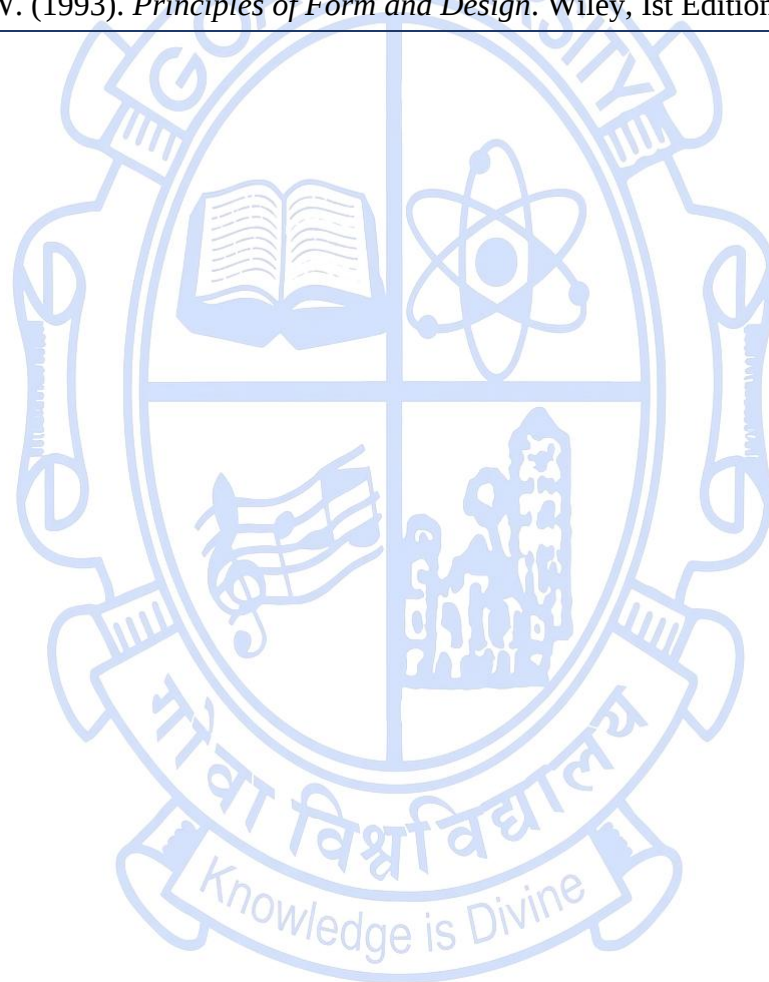
SEMESTER I

Title of the Course	Basic Design			
Course Code	BAR- 101			
Number of Credits	12			
Lecture/Studio/Tutorial /Seminar/ Fieldwork	Lecture-1, Studio-11			
Effective from AY	2026-27			
New Course	No			
Course Objectives:	The course shall enable the student to: 1. Develop fundamental design thinking through visual exploration and abstraction. 2. Cultivate visual literacy and representation skills through artistic exercises. 3. Use Biomimicry as a method of understanding and generating design ideas. 4. Build understanding of elements and principles of design in two & three-dimensional compositions.			
Course Outcomes:	After this course the student will be able to:			Mapped to PSO
	CO 1. Demonstrate basic visual representation skills through drawing and composition			PSO 5, 7
	CO 2. Analyse natural forms and translate them into abstract design concepts.			PSO 1, 3, 7
	CO 3. Apply elements and principles of design in 2D and 3D compositions.			PSO 1, 5
	CO 4. Develop simple physical models to explore form and space.			PSO 1, 5
	CO 5. Exhibit iterative design thinking and studio process documentation.			PSO 7
Content:		No of hours	Mapped to CO	Cognitive Level
Module 1:	Visual Arts and Representation i. Freehand drawing and observation	30	CO1, CO5	K2, K3

	ii. Line, texture, light and shadow iii. Colour theory and composition iv. Still life and basic perspective			
Module 2:	Biomimicry and Nature Studies i. Observation of natural forms and systems ii. Patterns, geometries, and growth structures iii. Abstraction and transformation iv. Nature-inspired design exercises	30	CO2, CO5	K2, K3, K4
Module 3:	Elements and Principles of Design (2D) i. Point, line, plane ii. Balance, rhythm, contrast, hierarchy iii. Two-dimensional compositions iv. Visual organisation and abstraction Form, volume, and space (3D) i. Solid–void relationships ii. Transformations (addition, subtraction, intersection) iii. Three-dimensional compositions and models	60	CO1, CO3, CO5	K3, K4
Module 4:	Ergonomics and Anthropometry: Studio Project focusing on Design of Architectural Object, such as chair, bed, elements of architecture such as door/window. OR/AND any architectural project of up to 50 sq.m such as a kiosk, watchman's cabin, etc	72	CO3, CO4, CO5	K3, K4, K6
Pedagogy:	Delivered through studio-based learning supported by short lectures, hands-on exercises, and iterative critiques focusing on visual exploration, biomimicry, and basic design principles.			
Texts/References/Readings:	1. Alexander, C. (1979). <i>The Timeless Way of Building</i> . Oxford University Press, 1st Ed, ISBN: 978-0195024029 2. Benyus, J. M. (1997). <i>Biomimicry: Innovation Inspired by Nature</i> . HarperCollins, Reissue Edition, ISBN: 978-			

0060533229

3. Ching, F. D. K. (2023). *Architecture: Form, Space, and Order*. Wiley, 5th Edition, ISBN: 978-1119853374
4. Ching, F. D. K. (2015). *Architectural Graphics* (6th ed.). Wiley, 6th Edition, ISBN: 978-1-119-03566-4
5. Stevens, P. S. (1974). *Patterns in Nature*. Little, Brown and Company. 1st Edition, ISBN : 978-0316813280
6. Wong, W. (1993). *Principles of Form and Design*. Wiley, 1st Edition, ISBN 978-0471285526



Title of the Course	Society & Architecture			
Course Code	BAR- 102			
Number of Credits	3			
Lecture/Studio/Tutorial /Seminar/ Fieldwork	Seminar-3			
Effective from AY	2026-27			
New Course	No			
Course Objectives:	The course shall enable the student to: 1. To understand the relationship between architecture and society as an interdisciplinary field of study. 2. To examine how social structures, culture, and institutions shape the built environment. 3. To develop sensitivity towards issues of caste, class, religion, and identity in architectural production. 4. To introduce methods of learning architecture through reading, observation, film, field visits, and reflection.			
Course Outcomes:	After this course the student will be able to:			Mapped to PSO
	CO 1. Explain architecture as a socially produced and culturally embedded phenomenon.			PSO 1, 7
	CO 2. Analyse the influence of family, society, and norms on spatial organisation.			PSO 1, 6
	CO 3. Interpret the impact of caste, class, religion, and state systems on architecture.			PSO 6, 7
	CO 4. Reflect on architecture through historical memory, media, and lived experience.			PSO 3, 6
	CO 5. Communicate insights through written, visual, and reflective documentation.			PSO 5, 7
Content:		No of hours	Mapped to CO	Cognitive Level
Module 1:	Architecture and Interdisciplinary Thinking i. What is architecture? Who produces it? ii. Architecture and social sciences iii. Interdisciplinary approach	6	CO1, CO5	K2, K3

	iv. Classroom as a social space v. Introduction to observation and reflection Key Activities: Intro discussion: “Social architecture of the classroom” Short reflection writing			
Module 2:	Individual, Family, Society and Built Form i. Individual, family, society as spatial constructs ii. Architecture as a social construct iii. Norms and everyday life iv. Memory, identity, and lived space	9	CO1, CO2	K2, K3,
Module 3:	Social Stratification, Labour and Built Environment i. Caste and class structures ii. Labour and architecture iii. Making of buildings as collective production iv. Craftspeople and construction knowledge systems Key Activities: Films Assignment: Craftspeople documentation (article / sketch / video / scrapbook)	9	CO2, CO3,	K3, K4
Module 4:	Religion, State, Media and Architectural Meaning i. Religion and spatial expression ii. State, law, and architecture iii. Media, aesthetics, and modernity iv. Light, shadow, and perception v. Field visit: Old Goa / Basilica of Bom Jesus (sketching and recording on scrapbook) Key Activities: Films / Media	12	CO3, CO4.	K3, K4,
Module 5:	History, Memory and the Architectural Profession	12	CO4.	K3, K4,

	i. Architecture as memory and history ii. Evolution of the architect iii. Role of documentation and interpretation iv. Student synthesis of learning Reading: Jolliffe (2023) Final Activity: Reflective portfolio submission (logbook + visual diary + essay) Comparison of initial vs final understanding		CO5	
Pedagogy:	Delivered as a seminar through readings, film screenings, discussions, and reflective assignments supported by written and visual documentation.			
Texts/References/Readings:	1. Dias, Favita. 2019. "Foreword." In <i>Hanv Konn?: Re-Searching the Self</i> , First edition. Saligao, Goa, India: Goa 1556. pp. 10-12. Ist Ed. ISBN: 9788194963202 2. Fernandes, Venisha. 2019. "Remembering the Past: Place and Memory after Displacement." In <i>Hanv Konn?: Re-Searching the Self</i> , First edition. Saligao, Goa, India: Goa 1556. pp. 21-32. Ist Ed. ISBN: 9788194963202 3. K. Ilaiyah and Durgabai Vyam. 2007. <i>Turning the Pot, Tilling the Land: Dignity of Labour in Our Times</i> . Pondicherry: Navayana Pub.: Distributed by IPD Alternatives, Delhi and WestLand Books, Chennai. Ist. Ed. ISBN 978-8189059095 4. Padgaonkar, Preeti, 2019. "My Ancestral Home: Where is it?." in <i>Hanv Konn?: Re-Searching the Self</i> , First edition. Saligao, Goa, India: Goa 1556. pp. 13-20. Ist Ed. ISBN: 9788194963202 5. Tanizaki, J. (2001). <i>In Praise of Shadows</i> . Vintage Classics. Revised Ed. ISBN: 978-0099283577			
Web Resources:	1. Jolliffe, Eleanor. 2023 (29 Sept.). "World Architecture Day: The Evolution of the Architect." https://www.spab.org.uk/news/world-architecture-day-evolution-architect 2. In praise of Shadows documentary. https://www.youtube.com/watch?v=C42INHwTfDM 3. Mina Le video (Modernism critique): Mina Le, "Why is Everything so Ugly: The Curse of Modernism." https://www.youtube.com/watch?v=Xq_uh1r_gXs 4. Film, Pistulya (Nagraj Manjule) https://www.youtube.com/watch?v=ovimYnrk07o			

Title of the Course	Architectural Graphics and Technical Drawings - I			
Course Code	BAR- 103			
Number of Credits	3			
Lecture/Studio/Tutorial /Seminar/ Fieldwork	Lecture-1, Studio-2			
Effective from AY	2026-27			
New Course	No			
Course Objectives:	The course shall enable the student to: 1. Develop technical drawing as a fundamental language of architectural communication. 2. Build skills in geometric construction and orthographic representation. 3. Represent simple forms through plans, elevations, and sections. 4. Cultivate clarity, precision, and visual expression through manual drafting and model-based understanding.			
Course Outcomes:	After this course the student will be able to:			Mapped to PSO
	CO 1. Use drawing instruments and techniques to produce accurate technical drawings.			PSO 2, 5
	CO 2. Construct and represent geometric forms using principles of descriptive geometry.			PSO 5
	CO 3. Draw plans, elevations, and sections of simple objects and compositions.			PSO 2, 5,
	CO 4. Translate three-dimensional forms into two-dimensional representations.			PSO 5,
	CO 5. Demonstrate clarity, line quality, and graphical communication skills.			PSO 5
Content:		No of hours	Mapped to CO	Cognitive Level
Module 1:	Drawing Instruments and Graphic Techniques i. Introduction to drawing instruments and materials ii. Line types, line quality, and control iii. Lettering and dimensioning basics	12	CO1, CO5	K2, K3

	iv. Freehand sketching and measured drawing (introductory)			
Module 2:	Geometric Constructions and Descriptive Geometry i. Basic geometric constructions ii. Reference planes and projection systems iii. Points, lines, and planes iv. True shape and true length	12	CO2	K3, K4
Module 3:	Orthographic Projection i. Principles of orthographic projection ii. Plan, elevation, and profile views iii. Projection of simple solids iv. Visualisation and interpretation	12	CO3, CO4	K3, K4
Module 4:	Sections and Representation of Solids i. Sections of simple geometric solids (cube, prism, pyramid, cylinder) ii. Section planes in standard positions (parallel, perpendicular, inclined – introductory) iii. Orthographic representation of sectional views iv. Combination of solids (limited to simple intersections) v. Development of surfaces vi. Representation through technical drawings vii. Application of the knowledge and representation in the Architectural drawings such as plans, sections, elevations.	12	CO3, CO4	K3, K4,
Pedagogy:	Delivered through studio-based manual drafting exercises supported by short lectures, demonstrations, and guided practice, focusing on precision, visualisation, and graphical communication.			
Texts/References/Readings:	1. Ching, F. D. K. (2023). <i>Architectural Graphics</i> (7th ed.). Wiley. ISBN: 978-1394206247 2. Bhatt, N. D. (2025). <i>Engineering drawing</i> (55th ed.). Charotar Publishing House. ISBN: 978-9385039805			

Title of the Course	Building Construction I: Earth-Based Construction	
Course Code	BAR- 111	
Number of Credits	4	
Lecture/Studio/Tutorial /Seminar/ Fieldwork	Lecture 1/Studio 3	
Effective from AY	2026-27	
New Course	No	
Course Objectives:	The course shall enable the student to: 1. Develop a basic understanding of building materials, with emphasis on the properties and applications of earth as a primary construction material. 2. Understand earth-based construction techniques used in primary building elements such as foundations, walls, piers, and openings. 3. Become familiar with masonry construction and bonding methods using earth and related materials. 4. Produce basic construction drawings and details of earth-based building systems.	
Course Outcomes:	After this course the student will be able to:	Mapped to PSO
	CO 1. Identify and describe the properties and applications of basic building materials, with emphasis on earth.	PSO2
	CO 2. Explain the use of earth-based construction techniques in primary building elements such as foundations, walls, and piers.	PSO2, 3
	CO 3. Illustrate construction details of foundations, walls, and openings using earth-based systems.	PSO 2, 5
	CO 4. Understand and apply basic masonry bonding methods and materials.	PSO 2
	CO 5. Produce clear and accurate construction drawings of simple building components.	PSO 5

Content:		No of hours	Mapped to CO	Cognitive Level
Module 1:	Building Materials and Earth Construction i. Basic building materials (overview) ii. Soil types and properties iii. Earth as a construction material iv. Manufacturing processes: bricks, mud blocks v. Properties and applications vi. Local earth-based building practices	12	CO1, CO2	K2, K3
Module 2:	Foundations and Substructure (Earth-Based Systems) i. Role and function of foundations ii. Simple foundation systems (brick/stone/earth) iii. Introduction to bonding materials (mud, lime – basic) iv. Foundation details and drawings	16	CO2, CO3, CO4	K2, K3
Module 3:	Walls, Piers, and Masonry Construction i. Load-bearing walls and piers ii. Brick, stone, and block masonry (earth focus) iii. Brick bonding (basic patterns) iv. Wall sections and construction drawings	18	CO2, CO3, CO4, CO5	K3, K4
Module 4:	Fenestrations, Bonding, and Construction Practice i. Openings in walls (doors/windows – basic) ii. Lintels (introductory, minimal) iii. Bonding materials and their application iv. Local examples of fenestrations in Goa v. Studio exercises: wall details, bonding drawings	18	CO3, CO4, CO5	K3, K4

	vi. Workshop: brick laying, setting-out, mud blocks			
Pedagogy:	Delivered through lectures, studio-based construction drawing exercises, and hands-on workshops, focusing on understanding earth-based construction techniques and their graphical representation.			
Texts/References/ Readings:	1. Barry, R. (2023). Introduction to the Construction of Building: Oxford: Blackwell. 5th Edition. ISBN: 978-1119730996 2. Ching, F. D. K. (2025). Building construction illustrated. Hoboken, NJ: Wiley. 7th Edition. ISBN: 978-1394279272 3. Fleming E. (2005). Construction Technology. Oxford: Blackwell. 1st Edition. ISBN: 978-1405102100 4. Kovac, K., Greeno, R., & Chudley, R. (2024). Chudley and Greeno's Building Construction Handbook. Abingdon, Oxon: Routledge, Taylor & Francis Group. 13th Edition. ISBN: 978-1032492889 5. Lyons, A. (2019). Materials For Architects And Builders. Oxford: Elsevier. 6th Edition. ISBN: 978-0815363392 6. McKay, W. B. (1980). Building Construction Volume 1. London: Longmans Green and Co. 7th Ed. ISBN: 0582422159 7. Rangwala, S. (2024). Engineering Material. Anand, Gujarat: Charotar Publishing House Pvt. Ltd. ISBN 978-9385039775 8. Kumar, S. (2008). Building construction. New Delhi, India: Standard Publishers and Distributors. 19th Ed. ISBN 8186308865			

Title of the Course	Building Structures - I			
Course Code	BAR- 112			
Number of Credits	3			
Lecture/Studio/Tutorial /Seminar/ Fieldwork	Lectures 3			
Effective from AY	2026-27			
New Course	No			
Course Objectives:	The course shall enable the student to: 1. Understand the basic concepts of structures and their role in architecture. 2. Understand different types of structural systems and load transfer mechanisms. 3. Develop an understanding of forces, loads, and equilibrium in simple structural systems. 4. Apply basic structural principles in architectural contexts.			
Course Outcomes:	After this course the student will be able to:			Mapped to PSO
	CO 1. Explain basic structural systems and their components.			PSO2
	CO 2. Identify and describe types of loads and their effects on structures.			PSO2
	CO 3. Understand and apply basic principles of forces and equilibrium.			PSO2 PSO7
	CO 4. Analyse simple structural systems and support conditions.			PSO2 PSO7
	CO 5. Solve basic numerical problems related to forces and reactions (introductory level).			PSO 7
Content:		No of hours	Mapped to CO	Cognitive Level
Module 1:	Introduction to Structures and Structural Systems i. Meaning of structure and structural components ii. Function of structure in architecture iii. Types of structures: load-bearing and framed systems	9	CO1, CO4	K2

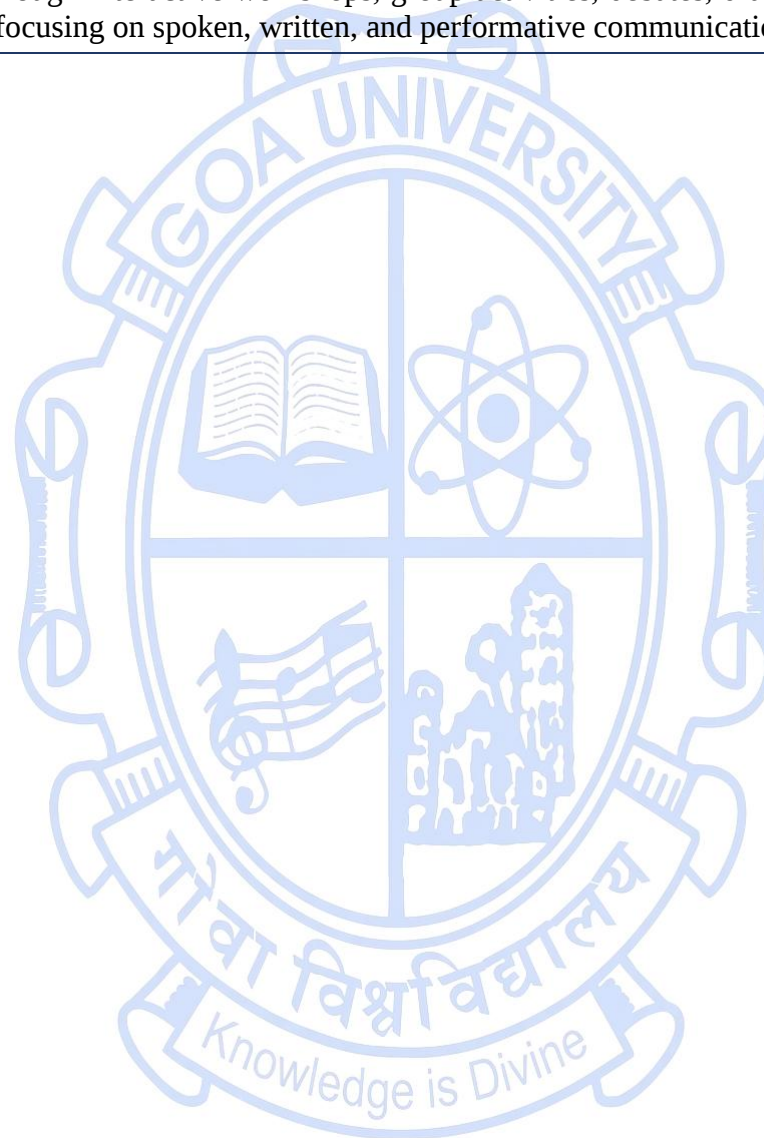
	iv. Basic structural behaviour (load path – introductory)			
Module 2:	Loads and Forces i. Types of loads: dead, live, wind, seismic (introductory) ii. Nature and characteristics of forces iii. Effect of loads on structures iv. Concept of load transfer	9	CO2, CO3	K2, K3
Module 3:	Forces and Equilibrium i. Composition and resolution of forces ii. Resultant and equilibrium iii. Analytical and graphical methods (simple systems only) iv. Moments and couples (basic concepts)	15	CO3, CO5	K3, K4
Module 4:	Supports, Reactions, and Basic Applications i. Types of supports and their characteristics ii. Simple beam behaviour (introductory) iii. Calculation of reactions (basic numericals) iv. Centroid and centre of gravity (simple geometries) v. Introduction to friction (conceptual relevance only)	15	CO3, CO4, CO5	K3, K4
Pedagogy:	Delivered through lectures, problem-solving sessions, and contextual examples, focusing on conceptual understanding of structural behaviour and basic analytical skills.			
Texts/References/Readings:	1. Ching, F. D. K., Onouye, B., & Zuberbuhler, D. (2014). <i>Building structures illustrated: Patterns, systems, and design</i> (Second edition (Online-Ausg.)). John Wiley & Sons, Inc. ISBN: 978-1-118-45835-8 2. Salvadori, M. (2002). <i>Why buildings stand up: The strength of architecture</i>. Norton. ISBN: 978-0-393-30676-7 3. Gordon, J. E. (1978). <i>Structures or Why things don't fall down</i>. Springer US. 4. Khurmi, R. S. (2018). <i>Engineering Mechanics</i>. S. Chand Publishing. Ed.22. ISBN: 978-9352833962			

Title of the Course	Communications Skills			
Course Code	BAR- 145			
Number of Credits	3			
Lecture/Studio/Tutorial /Seminar/ Fieldwork	Lecture 1, Tutorial 2			
Effective from AY	2026-27			
New Course	Yes			
Course Objectives:	The course shall enable the student to: 1. Develop effective oral and written communication skills in English relevant to architectural education. 2. Build confidence in public speaking, presentation, and verbal articulation of ideas. 3. Enhance expression through drama, role-play, and performative communication techniques. 4. Develop skills in argumentation, debate, and structured thinking through group activities and scripts.			
Course Outcomes:	After this course the student will be able to:			Mapped to PSO
	CO1: Communicate ideas clearly through spoken and written English.			PSO 5, 1
	CO2: Participate effectively in group discussions, debates, and presentations.			PSO 5, 8
	CO3: Demonstrate confidence in performative expression (drama, role-play, enactment).			PSO 5
	CO4: Structure and deliver arguments in a logical and persuasive manner.			PSO 5,1
	CO5: Create and present simple scripts and reflective communication outputs.			PSO 5
Content:		No of hours	Mapped to CO	Cognitive Level
Module 1:	Foundations of Communication and Expression i. Basics of verbal and non-verbal communication ii. Voice, tone, articulation, and clarity iii. Listening skills and response building	9	CO1, CO5	K2, K3

	iv. Introduction to reflective communication v. Initial recording of student communication (baseline assessment) vi. Building Architectural Vocabulary			
Module 2:	Spoken Communication and Group Interaction i. Group discussions and structured dialogue ii. Public speaking exercises iii. Short presentations on simple topics iv. Collaborative speaking tasks v. Peer feedback and reflection	9	CO1, CO2	K3, K4
Module 3:	Drama, Role Play and Script Writing (related to Architecture) i. Introduction to drama as communication ii. Role play and situational enactments iii. Writing short scripts (individual and group) iv. Expression through character and dialogue v. Group performances	12	CO3, CO5	K3, K6
Module 4:	Debate, Argumentation and Final Communication Project i. Structured debates and defending viewpoints ii. Logical argument building iii. Presentation of ideas with clarity and confidence iv. Final recorded communication project v. Comparison of beginning vs end-of-course recording	12	CO2, CO4, CO5	K4, K5, K6
Module 5:	Formal Writing: i. Formal Letter writing ii. Structure of Formal/Business Letters (Leave request, Admission request, Queries to higher authorities, Job Application)	6		

Pedagogy:

Delivered through interactive workshops, group activities, debates, drama exercises, script writing, and reflective recordings, focusing on spoken, written, and performative communication skills.

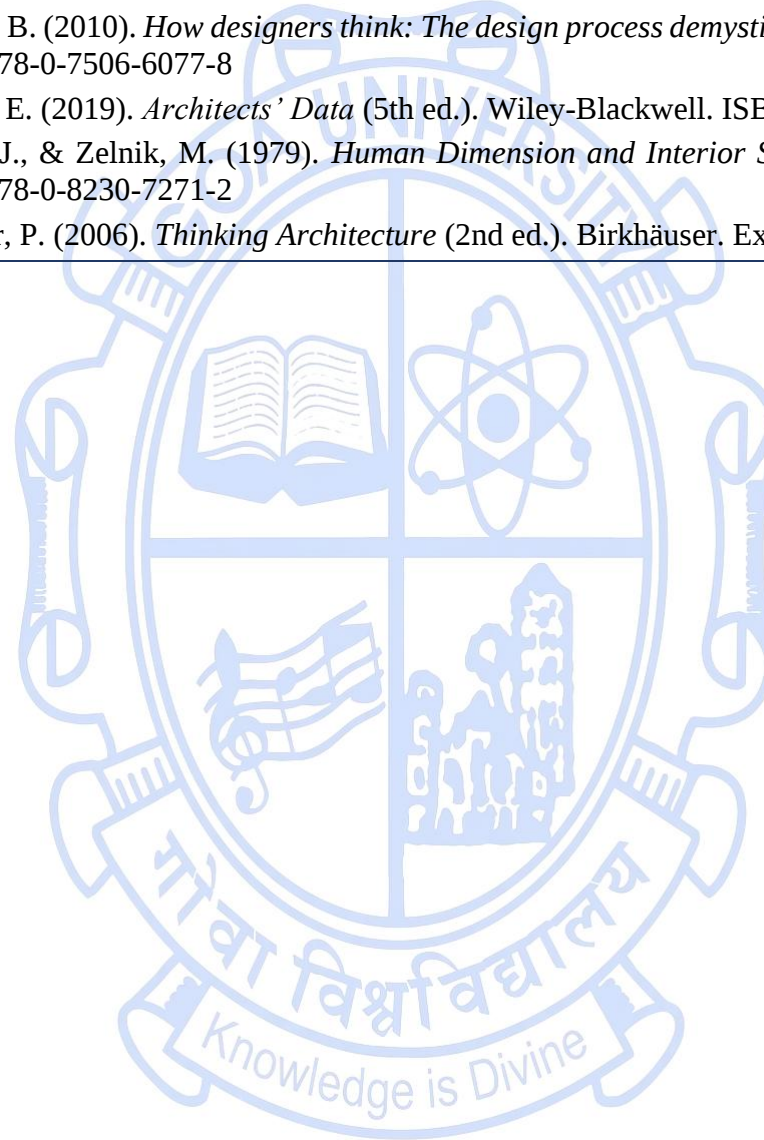


SEMESTER II

Title of the Course	Architectural Design - I			
Course Code	BAR- 151			
Number of Credits	12			
Lecture/Studio/Tutorial /Seminar/ Fieldwork	Lecture 1, Studio 11			
Effective from AY	2026-27			
New Course: Yes/No	No			
Course Objectives:	The course shall enable the student to: 1. Understand human-centred design through ergonomics and anthropometry. 2. Develop contextual understanding through observation, documentation, and visual analysis. 3. Explore spatial design through small-scale interventions. 4. Apply design thinking in a community-oriented project.			
Course Outcomes:	After this course the student will be able to:			Mapped to PSO
	CO 1. Apply anthropometric data and ergonomic principles in design exercises.			PSO 2, 1
	CO 2. Analyse and represent site context through drawings and diagrams.			PSO 6, 5, 7
	CO 3. Develop small-scale spatial designs responding to user needs.			PSO 1, 6, 3
	CO 4. Communicate design ideas through drawings, models, and visual media.			PSO 5
	CO 5. Demonstrate an understanding of spatial organisation, scale, and function.			PSO 1, 2
	CO 6. Present a coherent design proposal for a simple community-oriented project.			PSO 1, 6, 7
Content:		No of hours	Mapped to CO	Cognitive Level
Module 1:	Ergonomics and Anthropometry	30	CO1,	K1, K2,

	i. Human body measurements and proportions ii. Movement, reach, and activity analysis iii. Furniture and space standards iv. Human-scale design exercises		CO5	K3
Module 2:	Context Study and Visual Documentation i. Site observation and recording ii. Sketching and visual documentation iii. Activity mapping and user analysis iv. Basic site drawings and diagrams	30	CO2, CO4	K2, K3, K4
Module 3:	Studio Project I Single function design such as artist studio, dwelling, doctor's clinic, Kiosk etc. Approximate Built Up Area of up to 100 Square Metres. i. Understanding usersneeds ii. Site analysis and interpretation iii. Concept development iv. Design with Preliminary models and diagrams	60	CO2, CO3, CO4, CO5	K3, K4, K5
Module 4:	Studio Project II Single Function design project of approximately Built-Up Area of upto 200 Square Metres. i. Small-scale design intervention ii. Spatial organisation and layout iii. Spatial Drawing including Architectural Drawings iv. Design with Physical model and final presentation	72	CO3, CO4, CO5, CO6	K3, K4, K6
Pedagogy:	Delivered through studio work supported by short lectures, field-based observation, and iterative critiques, leading to a small-scale, community-oriented design project developed through analysis and design exploration.			
Texts/References/Readings:	1. Alexander, C., Ishikawa, S., & Silverstein, M. (1977). <i>A Pattern Language</i> . Oxford University Press. ISBN: 978-0195019193			

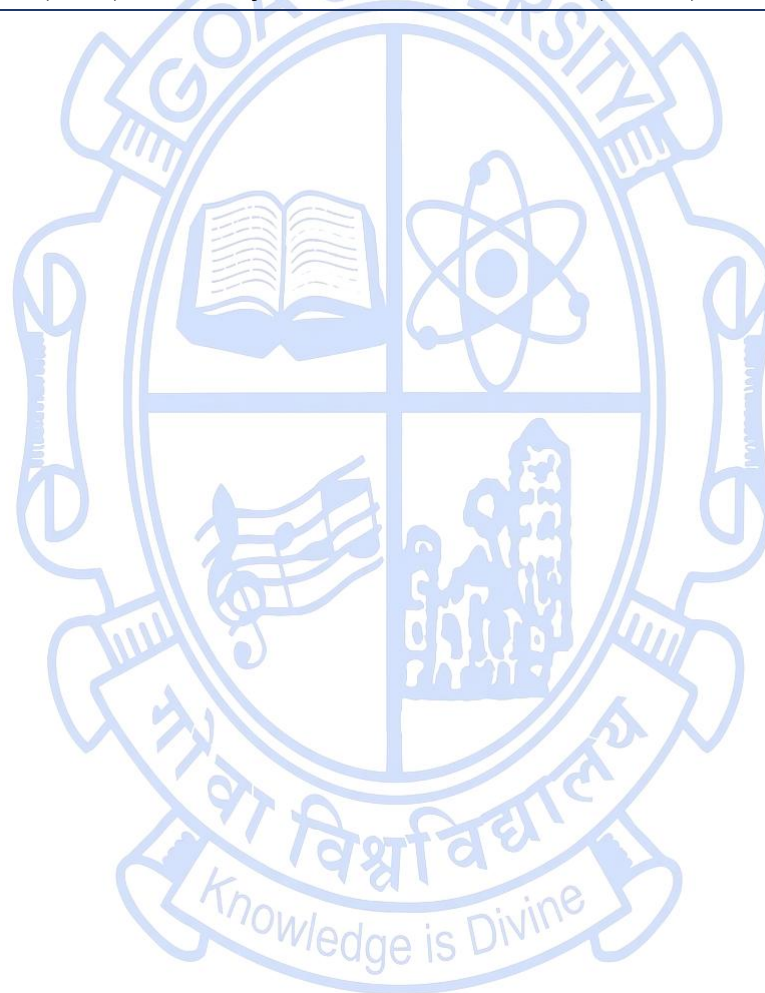
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| | <ol style="list-style-type: none">2. Ching, F. D. K. (2023). <i>Architectural Graphics</i> (7th ed.). Wiley. ISBN: 978-13942062473. Lawson, B. (2010). <i>How designers think: The design process demystified</i> (Reprint). Elsevier Architectural Press. ISBN: 978-0-7506-6077-84. Neufert, E. (2019). <i>Architects' Data</i> (5th ed.). Wiley-Blackwell. ISBN: 978-11196691735. Panero, J., & Zelnik, M. (1979). <i>Human Dimension and Interior Space</i>. Whitney Library of Design. 1st Ed. ISBN: 978-0-8230-7271-26. Zumthor, P. (2006). <i>Thinking Architecture</i> (2nd ed.). Birkhäuser. Expanded Ed. ISBN: 978-3764374976 |
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Title of the Course	Architectural History I: Early Civilisations			
Course Code	BAR- 152			
Number of Credits	3			
Lecture/Studio/Tutorial /Seminar/ Fieldwork	Seminar 3			
Effective from AY	2026-27			
New Course	No			
Course Objectives:	The course shall enable the student to: 1. Understand the relationship between climate, geography, and early architectural form-making. 2. Study selected early civilisations as responses to environmental and cultural conditions. 3. Understand architectural traditions of Indus Valley, Egypt, China, and Rome. 4. Develop basic skills of description and visual interpretation of historical architecture.			
Course Outcomes:	After this course the student will be able to:	Mapped to PSO		
	CO 1. Explain the relationship between climate, form, and early architectural development	PSO 3 PSO6		
	CO 2. Identify key characteristics of Indus Valley, Egyptian, Chinese, and Roman architecture.	PSO 4		
	CO 3. Explain how environmental and cultural factors shaped architectural development.	PSO 4		
	CO 4. Recognise basic similarities and differences among selected ancient civilisations.	PSO 4		
	CO 5. Communicate historical understanding through simple sketches, diagrams, and written reflections.	PSO 4 PSO 5		
Content:		No of hours	Mapped to CO	Cognitive Level
Module 1:	Introduction – Form, Culture, Climate and Origins of Architecture i. Architecture as response to climate and geography	8	CO1, CO5	K2, K3

	ii. Basic ideas of form, shelter, and spatial organisation iii. Introduction to early architectural thinking iv. Comparative way of reading architecture			
Module 2:	Indus Valley Civilisation – Planned Urbanism i. Urban planning and grid systems ii. Drainage and environmental adaptation iii. Domestic architecture and materials iv. Settlement structure and organisation	10	CO1, CO2, CO3	K2, K3
Module 3:	Egyptian Architecture – Monumentality and Environment i. Nile-based settlement logic ii. Pyramids, temples, and tomb architecture iii. Stone construction and symbolism iv. Climate and permanence	10	CO2, CO3	K2, K3
Module 4:	Chinese Architecture – Harmony, Timber and Landscape i. Relationship with nature and landscape ii. Timber construction systems iii. Courtyard typologies iv. Principles of harmony, balance, and hierarchy v. Climate responsiveness in built form	10	CO2, CO3, CO4	K2, K3,
Module 5:	Roman Architecture – Engineering and Spatial Expansion i. Arches, vaults, and concrete systems ii. Public buildings and urban infrastructure iii. Spatial scale and adaptability iv. Integration of earlier traditions	10	CO3, CO4, CO5	K3, K4,
Pedagogy:	Delivered through lectures, visual presentations, diagrammatic studies, sketch-based assignments, and comparative readings of early architectural traditions.			
Texts/References/ Readings:	1. Ching, F. D. K., Jarzombek, M. M., & Prakash, V. (2017). A Global History of Architecture (2nd ed.). Wiley. 3 rd . Ed. ISBN: 978-1118981337			

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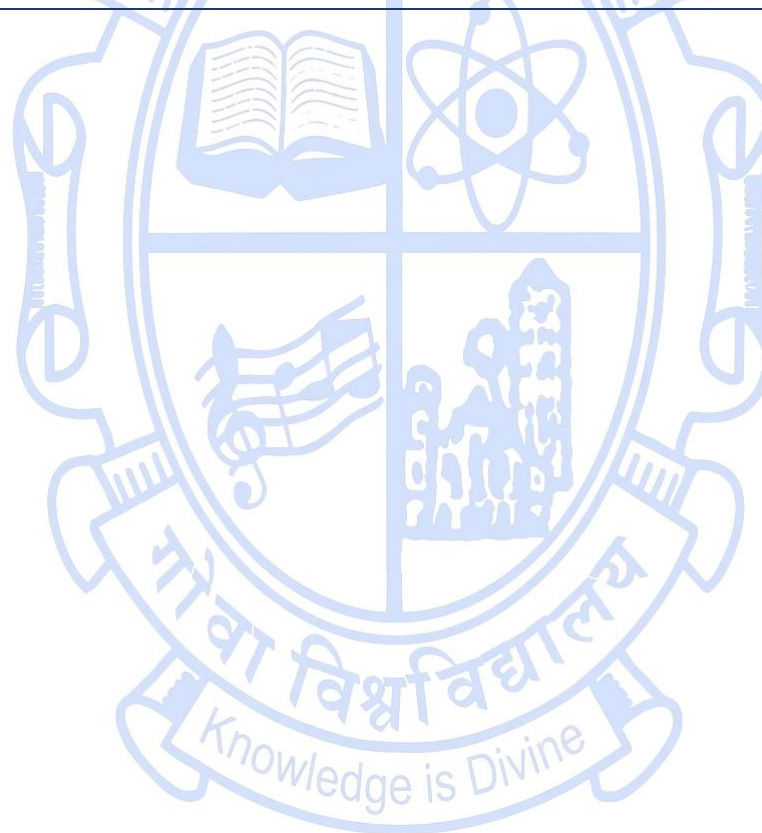
Title of the Course	Architectural Graphics and Technical Drawing II			
Course Code	BAR- 153			
Number of Credits	3			
Lecture/Studio/Tutorial /Seminar/ Fieldwork	Lecture 1, Studio 2			
Effective from AY	2026-27			
New Course	No			
Course Objectives:	The course shall enable the student to: 1. Develop the ability to represent three-dimensional objects through advanced two-dimensional projections. 2. Understand the principles of sciography (light and shadow) in architectural drawings. 3. Understand and apply isometric and perspective drawing techniques. 4. Enhance skills in visualisation and graphical communication of spatial form.			
Course Outcomes:	After this course the student will be able to:			Mapped to PSO
	CO 1. Draw projections of simple and complex three-dimensional forms.			PSO 5
	CO 2. Apply principles of sciography in two-dimensional drawings.			PSO 5,
	CO 3. Represent light and shadow in isometric projections.			PSO 5,
	CO 4. Construct one-point and two-point perspective drawings using basic principles.			PSO 5,
	CO 5. Communicate spatial ideas through clear and accurate graphical representation.			PSO 2, 5
Content:		No of hours	Mapped to CO	Cognitive Level
Module 1:	Advanced Projections and Spatial Representation i. Projection of simple 3D forms ii. Projection of complex forms and combinations iii. Development of spatial visualisation	12	CO1, CO5	K3, K4

Module 2:	Sciography in Two-Dimensional Drawings i. Principles of light and shadow ii. Sciography of simple forms iii. Application in plans and elevations	12	CO2 CO5	K2, K3,
Module 3:	Sciography in Three-Dimensional Projections i. Isometric projections ii. Light and shadow in 3D drawings iii. Representation of depth and volume	15	CO2, CO3, CO5	K3, K4
Module 4:	Perspective Drawing and Visual Representation i. Principles of perspective ii. Station point, picture plane, eye level iii. One-point and two-point perspectives iv. Perspective of simple built forms v. Application of the knowledge and representation in the Architectural drawings such as plans, sections, elevations, 3d views.	15	CO4, CO5	K3, K4,
Pedagogy:	Delivered through lectures and supervised studio-based drawing exercises focusing on projection, sciography, and perspective representation. The exercises devised in this course will be applied to architectural drawings.			
Texts/References/ Readings:	1. Bhatt, N. D. (2025). <i>Engineering drawing</i> (55th ed.). Charotar Publishing House. ISBN: 978-9385039805 2. Ching, F. D. K. (2023). <i>Architectural Graphics</i> (7th ed.). Wiley. ISBN: 978-1394206247 3. Ching, F. D. K. (2020). <i>Building construction illustrated</i> (Sixth edition). Wiley. 6th Ed. ISBN: 978-1-119-58308-0 4. Gill, R. W. (2006). <i>Perspective: From basic to creative</i>. Thames & Hudson. 1st Ed. ISBN: 978-0500286074 5. Montague, J. (2010). <i>Basic perspective drawing: A visual approach</i> (5th ed). J. Wiley & Sons. 5th Ed. ISBN: 978-0470288559			

Title of the Course	Building Construction II: Timber Construction and Joinery			
Course Code	BAR- 161			
Number of Credits	4			
Lecture/Studio/Tutorial /Seminar/ Fieldwork	Lecture 1/Studio 3			
Effective from AY	2026-27			
New Course: Yes/No	No			
Course Objectives:	The course shall enable the student to: 1. Understand timber as a building material, including its properties and applications. 2. Develop an understanding of the processing of timber and timber products. 3. Study the use of timber in primary and secondary building elements. 4. Produce basic construction drawings and joinery details.			
Course Outcomes:	After this course the student will be able to:			Mapped to PSO
	CO 1. Identify and describe the properties and uses of timber as a building material.			PSO 2
	CO 2. Explain the processing methods of timber including sawing and seasoning.			PSO 2
	CO 3. Illustrate construction details of timber-based building elements and joinery			PSO 2, 5,
	CO 4. Understand and apply basic carpentry and joinery techniques.			PSO 2
	CO 5. Produce clear and accurate construction drawings of timber elements.			PSO 5
Content:		No of hours	Mapped to CO	Cognitive Level
Module 1:	Timber as a Building Material and Processing i. Properties of timber ii. Types and classification iii. Timber defects (introductory)	12	CO1, CO2	K2, K3

	iv. Sawing and seasoning of timber v. Timber products (plywood, boards, etc.) vi. Local Timber Elements in Goa vii. Site visit to saw mill / timber yard to observe processing methods			
Module 2:	Timber in Primary Building Elements i. Use of timber in structural elements (introductory) ii. Floors and simple roof members (basic understanding only) iii. Construction logic and connections iv. Basic detailing principles	12	CO2, CO3	K2, K3
Module 3:	Secondary Elements and Joinery i. Doors and windows (types and components) ii. Local Timber Elements iii. Timber joinery (basic joints) iv. Railings, sunshades, and small elements v. Joinery detailing in drawings	18	CO3, CO4, CO5	K3, K4
Module 4:	Construction Drawings and Workshop Practice i. Studio exercises: a. Door and window details b. Floor and simple roof details c. Joinery drawings ii. Carpentry workshop exposure iii. Understanding tools and making processes iv. Translation of making into drawings	22	CO3, CO4, CO5	K3, K4,
Pedagogy:	Delivered through lectures, studio-based construction drawing exercises, and carpentry workshop exposure, focusing on timber construction and joinery detailing.			
Text/References/Readings:	1. Barry, R. (1982). The construction of Buildings Volume 2: Windows, door, fires, stairs, finishes. London: Granada.			

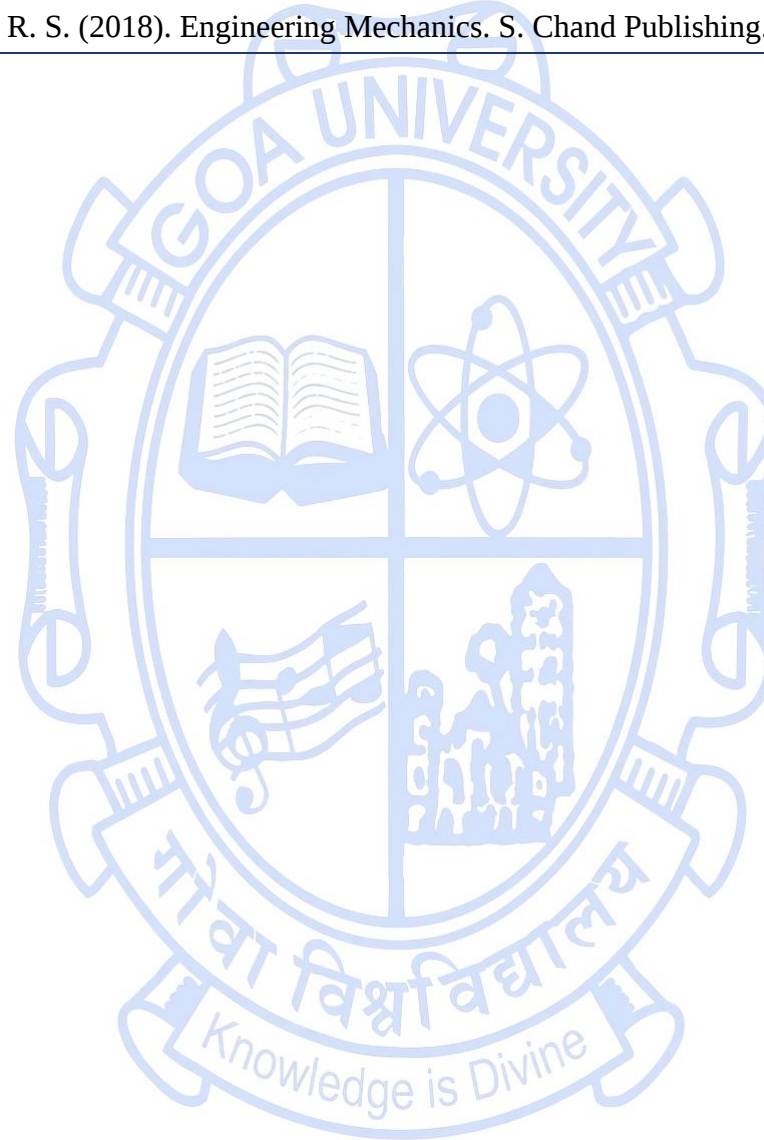
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| | <ol style="list-style-type: none">2. Ching, F. D. K. (2025). Building construction illustrated. Hoboken, NJ: Wiley.3. Fleming E. (2005). Construction Technology. Oxford: Blackwell4. Kovac, K., Greeno, R., & Chudley, R. (2024). Chudley and Greeno's Building Construction Handbook. Abingdon, Oxon: Routledge, Taylor & Francis Group.5. Kovacs, F. (1991). Wood joints in classical Japanese architecture. Tokyo: Kajima Institute Pub. Co.6. Larry Haun. (2008). Very efficient carpenter. S.l.: TAUNTON PRESS INC.7. Lyons, A. (2007). Materials For Architects And Builders. Oxford: Elsevier.8. Kumar, S. (2010). Building construction. New Delhi, India: Standard Publishers and Distributors. |
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Title of the Course	Building Structures II			
Course Code	BAR- 162			
Number of Credits	3			
Lecture/Studio/Tutorial /Seminar/ Fieldwork	Lectures 3			
Effective from AY	2026-27			
New Course	No			
Course Objectives:	The course shall enable the student to: 1. Understand the basic properties and behaviour of structural materials. 2. Understand the fundamental concepts of stress and strain. 3. Develop an understanding of beam behaviour under simple loading conditions. 4. Relate structural behaviour to basic building elements and systems.			
Course Outcomes:	After this course the student will be able to:			Mapped to PSO
	CO 1. Identify and describe the properties of common structural materials.			PSO 2
	CO 2. Explain basic concepts of stress and strain.			PSO 2, 7
	CO 3. Understand the behaviour of simple beams under loading.			PSO 2, 7
	CO 4. Interpret basic shear force and bending moment diagrams.			PSO 2
	CO 5. Recognise the role of basic structural systems such as trusses.			PSO 1, 2
Content:		No of hours	Mapped to CO	Cognitive Level
Module 1:	Structural Materials and Behaviour of Materials i. Properties of steel, timber, concrete, brick, stone ii. Introduction to stress–strain behaviour iii. Modulus of elasticity (basic idea)	12	CO1, CO2	K2, K3

	iv. Strength and durability v. (Optional: lab/small demonstration)			
Module 2:	Stress, Strain and Material Response i. Types of stress and strain ii. Poisson's ratio (introductory) iii. Effects of temperature (conceptual) iv. Behaviour under different loading conditions	12	CO2, CO3	K2, K3
Module 3:	Beams – Shear Force and Bending and Basic Structural System i. Types of beams (cantilever, simply supported) ii. Loads on beams iii. Shear force and bending moment (basic problems only) iv. SFD and BMD (simple cases) v. Intro to bending behaviour (conceptual) vi. Introduction to trusses (types and uses) vii. Basic idea of moment of inertia viii. Structural behaviour in buildings	12	CO3, CO4,	K3, K4
Module 4:	SURVEYING AND LEVELLING i. Technical Site information recording: introduction to surveying and levelling ii. Tools & Techniques employed at various scales of Surveying and Levelling iii. Documentation of Site for Surveying and Levelling iv. Fieldwork	18	CO3, CO5	K3,
Pedagogy:	Delivered through lectures, simple problem-solving sessions, demonstrations, and visual/field-based work and learning focusing on conceptual understanding of structural behaviour and Building Surveying and Levelling.			
Texts/References/Readings:	1. Ching, F. D. K., Onouye, B., & Zuberbuhler, D. (2014). <i>Building structures illustrated: Patterns, systems, and design</i> (Second edition (Online-Ausg.)). John Wiley & Sons, Inc. 2. Salvadori, M. (2002). <i>Why buildings stand up: The strength of architecture</i> . Norton.			

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| | <ol style="list-style-type: none">3. Gordon, J. E. (1978). <i>Structures or Why things don't fall down</i>. Springer US.4. Khurmi, R. S. (2018). <i>Engineering Mechanics</i>. S. Chand Publishing. |
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Title of the Course	Digital Communication I: Computer-Aided Drafting (CAD)			
Course Code	BAR- 195			
Number of Credits	3			
Lecture/Studio/Tutorial /Seminar/ Fieldwork	Lecture 1, Lab/Tutorial 2			
Effective from AY	2026-27			
New Course	Yes			
Course Objectives:	The course shall enable the student to: 1. Understand computer-aided drafting (CAD) as a tool for architectural representation. 2. Develop skills in creating accurate two-dimensional digital drawings. 3. Understand drawing conventions, layering, scaling, and annotation in CAD. 4. Translate manual drawings into digital formats.			
Course Outcomes:	After this course the student will be able to:			Mapped to PSO
	CO 1. I Operate basic CAD tools for 2D drafting and editing.			PSO 5
	CO 2. Create accurate plans, elevations, and simple drawings in digital format..			PSO 5
	CO 3. Apply layers, line types, text, and dimensioning in drawings.			PSO 5
	CO 4. Organise and present drawings using basic layout and plotting techniques.			PSO 5
	CO 5. Translate manual drawings into clear digital drawings.			PSO 5
Content:		No of hours	Mapped to CO	Cognitive Level
Module 1:	Introduction to CAD and Digital Drafting i. Introduction to CAD interface ii. Drawing tools (line, circle, polygon, etc.) iii. Coordinate systems and basic commands	12	CO1,	K2, K3

	iv. Editing tools (move, copy, trim, extend) i. File management ii. Accuracy and scaling iii. Layers, line weights, and line types iv. Object snaps and grid systems v. Basic geometric construction			
Module 2:	Architectural Drawings in CAD i. Drawing simple plans and elevations ii. Openings (doors, windows) iii. Annotation and dimensioning iv. Converting manual drawings into CAD v. Introduction to blocks (basic use) vi. Layouts and viewports vii. Title blocks and sheet setup viii. Plotting and printing ix. File export formats x. Basic drawing presentation	12	CO2, CO3	K2, K3
Module 3:	Introduction to 3D Modelling Environment i. Interface and navigation ii. Understanding 3D space (axes, views) iii. Basic primitives (cube, cylinder, sphere) iv. Selection and transformation tools	12	CO2, CO3, CO5	K3, K4
Module 4:	3D Modelling, Spatial Composition, and Output i. Form generation (extrusion, push-pull, Boolean basics) ii. Transformation (scale, rotate, group) iii. Converting simple 2D drawings into 3D models iv. Modelling basic architectural elements (walls, openings) v. Developing simple spatial compositions vi. Views, scenes, and basic visual output	12	CO4, CO5	K3,

	vii. Exporting images and presentation			
Pedagogy:	Delivered through hands-on computer lab sessions with guided exercises and tutorials in CAD drafting and 3D Modelling, focusing on precision, conventions, and translation of manual drawings into digital formats.			

