

GANPAT UNIVERSITY									
FACULTY OF ARCHITECTURE DEISGN & PLANNING									
Programme		Bachelor of Architecture			Branch/Spec.		INSTITUTE OF ARCHITECTURE		
Semester		V			Version		1.0.0.0		
Effective from Academic Year			2015-16		Effective for the batch Admitted in			June 2015	
Subject code		VA01ADS		Subject Name		Architecture Design Studio- V			
Teaching scheme					Examination scheme (Marks)				
(Per week)	Lecture(DT)		Practical(Lab.)		Total	CE	SEE	Total	
	L	TU	P	TW					
Credit	-	-	12	-	12	Theory	-	-	-
Hours	-	-	15	-	15	Practical	720	480	1200
Pre-requisites:									
Exploring Architectural Design process and solution for small Institution with lesser complexity of services / functions.									
Learning Outcome:									
Theory syllabus									
Unit	Content								Hrs
1	Studying the specific requirements of an Institution. Notions of public, private, semi private activities and hierarchy of open, semi open and covered spaces. Relevant case studies and their analysis.								
2	Process of evolution of form through abstraction of an idea. Developing conceptual solutions. Efficiency of Services, Sustainability issues. Developing appropriate construction / structural systems. Building Bye laws implementation.								
Practical content									
Case studies of similar examples (Live and Literature). Literature reviews, analysis and conclusions with understanding. Site visits and interaction with various stake holders. Proposing an architectural solution of a small Institution of Commercial / Social / Educational / Public or other nature. Producing working drawings of an independent design project from the previous semester.									
Text Books									
1									
Reference Books									
1	Intensions in Architecture - Christian Noberg Schultz								
2	Site, Space and Structure - Todd, Kim								
3	Architects working details – Vol. 1 to 5								

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Effective from Academic Year			2015-16		Effective for the batch Admitted in			June 2015	
Subject code		VA02BCD		Subject Name		Building Construction & Details- V			
Teaching scheme					Examination scheme (Marks)				
(Per week)	Lecture(DT)		Practical(Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	-	-	3	-	3	Theory	-	-	-
Hours	-	-	6	-	6	Practical	240	160	300
Pre-requisites:									
Understanding of specialized construction system									
Learning Outcome:									
Theory syllabus									
Unit	Content								Hrs
1	Understanding of Precast and Pre-stressed concrete components and their applications in building /construction industry.								
2	Materials and Construction Technology for large span structures (Temporary/Permanent)								
Practical content									
Study through practical site visits, presentations, case studies & workshop based on the application of theory to construction field.									
Text Books									
1	NA								
Reference Books									
1	Prestressed concrete - Krishna Raju								
2	Structures in architecture - Salvadory								
3	Building Construction - B.C. Punmia								
4	The Construction of Building - R. Barry,								
5	Building Construction, Vol –I,II,III, - Mackey W.B								

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Effective from Academic Year	2015-16				Effective for the batch Admitted in	June 2015			
Subject code	VA03STR		Subject Name		Structure-V				
Teaching scheme					Examination scheme (Marks)				
(Per week)	Lecture(DT)		Practical(Lab.)		Total	CE	SEE	Total	
	L	TU	P	TW					
Credit	3	-	-	-	3	Theory	180	120	300
Hours	3	-	-	-	3	Practical	-	-	-
Pre-requisites:									
Behavioural study of Typical structures									
Learning Outcome:									
Theory syllabus									
Unit	Content								Hrs
1	<p>Analysis & design a R.C.C. member subjected to an axial compressive load by limit state method. i.e. R.C.C. column.</p> <p>Ductile detailing of main steel, lateral ties, confine zones, unconfine zones in RCC columns as per I.S. code 13920.</p> <p>RCC Footing :</p> <p>Analysis & design of RCC isolated column footing.</p> <p>Introduction to combined footing & raft footing .i.e. study of behaviour & detailing of steel reinforcement.</p>								
2	<p>Doubly reinforced section :</p> <p>Analysis of doubly reinforced section.</p> <p>Calculation of Moment of resistance.</p> <p>RCC Water Tank :</p> <p>Types of water tank, various types of joints in water tank, behaviour & reinforcement detailing for ground water tank- circular & rectangular.</p> <p>Over head water tank- Intez tank.</p> <p>Underground water tanks.</p>								
Practical content									
Theory and tutorial based upon course contents									
Text Books									
1	NA								
Reference Books									
1	Reinforce concrete design – Junarka								
2	Design of reinforced concrete structures - S. Ramamrutham & S. Narayan								

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Subject code		VA04HOA		Subject Name		History of Architecture - V			
Teaching scheme					Examination scheme (Marks)				
(Per week)	Lecture(DT)		Practical(Lab.)		Total	CE	SEE	Total	
	L	TU	P	TW					
Credit	2	-	-	-	2	Theory	120	80	200
Hours	2	-	-	-	2	Practical	-	-	-
Pre-requisites:									
Evolution of the built environment or human habitat as a complex and multilayered synthesis of culture, climate and construction.									
Learning Outcome:									
Theory syllabus									
Unit	Content								Hrs
1	History about (1900 – 2100 ad) Formative years of Modern Architecture. Crystallization of Modern Architecture.								
2	Roots and modernity in India. Search for modern Indian Architecture. Architecture in development.								
Practical content									
Drawings, Lectures, Presentations, Movies, Discussions and Debates based upon the above syllabus.									
Text Books									
1	NA								
Reference Books									
1	A History of Architecture – Sir Banister Fletcher								
2	Genius Loci: Towards a Phenomenology of Architecture - Christian Noberg Schultz								
3	Towards a new architecture - Le Corbusier								
4	Complexity and Contradiction in Architecture - Robert Venturi								
5	Modern Architecture and Design: An alternative history - Bill Risebero								
6	Architecture: 19th and 20th Centuries - William J.R. Curti								
7	Architecture after Modernism - Thames and Hudson								

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Subject code		VA05ESS		Subject Name		Environment Science Services-III			
Teaching scheme					Examination scheme (Marks)				
(Per week)	Lecture(DT)		Practical(Lab.)		Total	CE	SEE	Total	
	L	TU	P	TW					
Credit	2	-	-	-	2	Theory	120	80	200
Hours	2	-	-	-	2	Practical	-	-	-
Pre-requisites:									
HVAC, Introduction to Building Automation services, Introduction to Building Security Systems.									
Learning Outcome:									
Theory syllabus									
Unit	Content								Hrs
1	Air conditioning Different systems in current use from chilled water cooling systems to air handling package unit etc; their installations requirements and demand in building layouts. Supply air, return air ducting systems, their layouts and requirements along with building systems.								
2	Building Automation Concept and application of Automation and Management System; Design issues related to building automation and its effect on functional efficiency; Components of building automation system; HVAC, electrical, lighting, security, fire-fighting, communication etc.; Integrated approach in design, maintenance and management system; Current trend and innovation in building automation systems; Impact of Information Technology; Concept of artificial intelligence; Application of expert system in building automation; Stages in development of expert system, expert system application in architecture; Computerizing building management information.								
	Building Security Systems Concept of Building security Systems; Design issues, Components, Integrated approach in design, maintenance and management, Current trend and innovation, Application.								
Practical content									
Site Visits & Case Studies of above topics. Presentations, Movies, Debates & Discussions related to the above syllabus.									
Text Books									
1									
Reference Books									
1	Heating cooling, lighting - Norbert Lechner								
2	Mechanical & Electrical Equipment for Building - William J. McGuiness & others								
3	Operation & Maintenance of Electrical Equipment - B.V.S.Rao								
4	Intelligent Buildings and Building Automation - Shengwei Wang								
5	Understanding Building Automation System - Reinhold A. Carlson								

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Subject code		VA06ECS		Subject Name		Estimating costing & specification-I			
Teaching scheme					Examination scheme (Marks)				
(Per week)	Lecture(DT)		Practical(Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	2	-	-	-	2	Theory	120	80	200
Hours	2	-	-	-	2	Practical	-	-	-
Pre-requisites:									
To develop basic understanding the importance of estimate and designing of specification to achieve the best in terms of cost efficiency and standards.									
Learning Outcome:									
Theory syllabus									
Unit	Content								Hrs
1	Introduction to subject and its importance giving practical examples. Understanding of various types of estimation used in the profession. Understanding of different methods of calculating quantities, i.e. approximate and detailed estimate.								
2	Understanding of various types of specification. Understanding of mode of measurement. Understanding of qualitative aspect in terms of material strength and workmanship. Understanding of importance of specification in contract document and execution purpose.								
Practical content									
Study through practical site visits, presentations, case studies, tutorial, study of BOQ & workshop based on the application of theory to construction field.									
Text Books									
1									
Reference Books									
1	Estimating and costing - B.N Dutta								
2	Estimating and costing - Rangwala								
3	Quantity Surveying - Rangwala								
4	Professional Practice - Roshan Nanavati								

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Subject code	VB07 WS/ELE		Subject Name		Workshop/Elective-V				
Teaching scheme					Examination scheme (Marks)				
(Per week)	Lecture(DT)		Practical(Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	-	-	2	-	2	Theory	-	-	-
Hours	-	-	6	-	6	Practical	120	80	200
Pre-requisites:									
Art based workshop									
Learning Outcome:									
Theory syllabus									
Unit	Content								Hrs
1	Calligraphy, Drama, French Language, Weaving								
Practical content									
Exercises based upon above topics. Presentation, Documentation, Graphics, Artworks, Installation.									
Text Books									
1	NA								
Reference Books									
1									

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Subject code	VB08RSP*	Subject Name		Related Study Programme-III*			
Teaching scheme				Examination scheme (Marks)			
(Per week)	Lecture(DT)	Practical(Lab.)		Total	CE	SEE	Total
	L	TU	P	TW			
Credit	NA			Theory	NA		
Hours	1 Week Case Study			Practical	ATTENDANT/ NOT ATTENDANT		
Pre-requisites:							
Observation of form and order in built environment							
Learning Outcome:							
Theory syllabus							
Unit	Content						Hrs
1	Sketching, Photography, Measure Drawing						
Practical content							
This RSP aims at creating understanding of inherent form and order in the built environment by observing it and analyzing by sketching and measure drawing. Hand sketch also gives an opportunity to students for examining the systems, scale and architectural language of the built.							
Text Books							
1	NA						
Reference Books							
1	NA						
2	NA						

