

SHIVAJI UNIVERISTY, KOLHAPUR-416 004. MAHARASHTRA

PHONE : EPABX-2609000 **website- <u>www.unishivaji.ac.in</u>** FAX 0091-0231-2691533 & 0091-0231-2692333 – BOS - 2609094

शिवाजी विद्यापीठ, कोल्हापूर – 416004.

दुरध्वनी (ईपीएबीएक्स) २६०९००० (अभ्यास मंडळे विभाग— २६०९०९४) फॅक्स : ००९१-०२३१-२६९१५३३ व २६९२३३३.e-mail:bos@unishivaji.ac.in

Ref.No. SU/BOS/Sci & Tech/

No O 8 O 5 - Date: 23/09/2019

To,

2 4 SEP 2013

The Principal,

All affiliated Engineering College,

Shivaji University,

Kolhapur.

Subject:-Regarding minor changes in syllabus of Bachelor of Architecture (B. Arch.) CBCS Part-I (Sem I& II) Program under Faculty of Science & Technology.

**Ref.:-** SU/BOS/Sci & Tech/6591 dt. 28/06/2019

## Sir/Madam,

With reference to subject mentioned above, I am directed to inform you that University authorities has accepted and granted approval to the minor changes in syllabus of Bachelor of Architecture (B. Arch.) CBCS Part-I (Sem I& II) Program under Faculty of Science & Technology. The corrected syllabus is enclosed herewith.

A soft copy containing the syllabus is enclosed herewith and it is also made available on website www.unishivaji.ac.in (Online syllabus)

You are therefore, requested to bring this to the notice of all students and teachers concerned.

Thanking you,

Yours faithfully,

**Deputy Registrar** 

Encl:- As above Copy to:

1	The Dean, Faculty of Science & Technology	7	Computer Centre
2	The Chairman, Respective Board of Studies	8	Affiliation Section (T.1)
3	Director, Examination and Evaluation	9	Affiliation Section (T.2)
4	Eligibility Section	10	P.G.Admission Section
5	O.E. – 4	11	P.G Seminar Section
6	Appointment Section	12	Meeting Section

# SHIVAJI UNIVERSITY KOLHAPUR



Estd. 1962

NAAC 'A'Grade

**Faculty of Science and Technology** 

**Syllabus For** 

B. Arch. Part – I (Sem I & II)

(To be implemented from June 2019 onwards)

(Subject to the modifications that will be made from time to time)

## FIRST YEAR ARCHITECTURE ENGINEERING – CBCS PATTERN

										SEMEST	TER - I											
					TEA	CHING	SCHI	EN	<b>IE</b>						EXAN	IINAT	ΓΙΟΝ	SCHE	ME			
C	se ct	7	<b>THEOR</b>	Y	T	UTORIA	<b>AL</b>		PRAC	CTICAL/ST	<b>FUDIO</b>		T	HEO	RY		VI	VA-VC	CE	TE	RM WO	ORK
Sr. No	Course (Subject Title)	Credits	No. of Lecture	Hours	Credits	No. of Lecture	Hours		Credits	No. of Studios	Hours	Hours	Mode	Marks	Total Marks	Min	Hours	Max	Min	Hours	Max	Min
1	PC – 101	1	1	1	-	-	-		1	3	3									3	100	50
2	PC – 102	1	1	1	-	-	-		1	3	3						lines			3	50	25
3	PC – 103 **	1	1	1	-	-	-		9	6	6						Guidelines	100	45	6	100	50
4	PC – 104 **	2	2	2	-	-	-					2	ESE	50	50	23	BOS				50	25
5	BS & AE – 105	1	1	1	-	-	-		2	3	3	2	ESE	50	50	23	As per BOS			3	50	25
6	BS & AE – 106 **	3	3	3	-	-	-					3	ESE	80	80	36	7				20	10
7	PC – 107	ı	-	-	-	-	-		1	2	2		-	-	-	-				2	50	25
8	SEC - 108	2	2	2	-	-	-		-	-	-		-	-	-	-				-	50	25
9	SEC – 109	1	1	1	-	-	-		1	1	1		-	-	-	-				1	50	25
	TOTAL	10	10	10	-	-	-		17	20	20				180					20	520	260
										SEMEST	ER –II				T					1	ı	
1	PC – 201	1	1	1	-	-	-		1	3	3									3	100	50
2	PC – 202	1	1	1	-	-	-		1	3	3	3	ESE	100	100	45				3	50	25
3	PC – 203 **	1	1	1	-	-	-		9	6	6							100	45	6	100	50
4	PC – 204 **	2	2	2	-	-	-					2	ESE	50	50	23					50	25
5	BS & AE – 205 *	1	1	1	-	-	-		2	3	3	3	ESE	100	100	45		100	45	3	50	25
6	BS & AE – 206 **	3	3	3	-	-	-					3	ESE	80	80	36					20	10

7	PC – 207				-	-	-	1	2	2						2	50	25
8	SEC - 208	2	2	2	-	-		-	-	-							50	25
9	SEC - 209	1	1	1	-	-	-	1	1	1						1	50	25
	TOTAL	10	10	10				17	20	20		•	330	•	300		520	260
	TOTAL	20	20	20				34	40	40			510		300		1040	

CIE- Continuous Internal Evaluation ESE – End Semester Examination

• Candidate contact hours per week : 30 Hours(Minimum)	• Total Marks for B.ArchI;Sem I & II :1850
• Theory/Tutorial Duration : 60 Minutes and Practical Duration :	• Total Credits for B.ArchI (Semester I & II):54
60Minutes	

- There shall be separate passing for theory and practical (term work)courses.
- Sem I SSC: Soft Skill Course: There shall be an additional compulsory course of 2 Credits (Self Study) for a course of Democracy, Elections and Good Governance which will not included in total Credits
- Sem II SSC: Soft Skill Course: Any one from following (i) to (v) (2 Credits) (SelfStudy)
  i) Business Communication & Presentation ii) Event management iii) Personality Development, iv) Yoga & Physical Management v)
  Resume, Report & proposalwriting

## • SECOND YEAR ARCHITECTURE ENGINEERING - CBCSPATTERN

									SEMEST	ER – III												
					TEA	ACHING	SCHE	EME							EXAN	1INA	ΓΙΟΝ	SCHE	ME			
Sr.	se ect	7	THEOR	Y	T	UTORIA	L	PRA	CTICAL/S	<b>FUDIO</b>			Γ	HEO	RY		VI	VA-VC	CE	TEI	RM WO	ORK
No	Course (Subject Title)	Credits	No. of Lecture	Hours	Credits	No. of Lecture	Hours	Credits	No. of Lecture	Hours	;	Hours	Mode	Marks	Total Marks	Min	Hours	Max	Min	Hours	Max	Min
1	PC - 301	1	1	1				1	3	3										3	50	25
2	PE – 302	1	1	1				1	1	1							ines			1	100	50
3	PC - 303	1	1	1				9	6	6							Guidelines	100	45	6	100	50
4	BS & AE – 304 *	1	1	1				2	3	3	3	3	ESE	80	80	36	BOS	100	45	3	70	35
5	BS & AE – 305 **	3	3	3							3	3	ESE	80	80	36	As per ]				20	10
6	PC - 306 **	1	1	1				1	2	2	3	3	ESE	80	80	36	¥			2	20	10
7	BS & AE – 307	1	1	1				1	2	2	3	3	ESE	100	100	45				2	50	25
8	BS & AE – 308	2	2	2							2	2	ESE	50	50	23					50	25
9	BA & AE - 309	2	2	2																		
	TOTAL	13	13	13	Ш			15	17	17					390			200			460	
									SEMEST	ER – IV												
1	PC – 401	1	1	1				1	3	3							Guidelines			3	100	50
2	PE – 402	1	1	1				1	1	1							S Guic			1	100	50
3	PC – 403 **	1	1	1				9	6	6	Ş	)	ESE	100	100	45	As per BOS	100	45	6	100	50
4	BS & AE – 404 *	1	1	1				2	3	3	3	3	ESE	80	80	36	A:	100	45	3	70	35

5	BS & AE – 405 **	3	3	3						3	ESE	80	80	36					20	10
6		1	1	1			1	2	2		CIE					50	23	2	50	25
	BS & AE – 406										ESE									
7	PC – 407 **	1	1	1			1	2	2	3	ESE	80	80	36		-		2	20	10
8	BS & AE – 408	2	2	2						2	ESE	50	50	23		-			50	25
9	BA & AE - 409	2	2	2						3	ESE	70	70	32	-	-			30	15
	TOTAL	13	13	13			15	17	17				460			250			540	
		•					•											•		
	TOTAL	26	26	26			30	34	34				850			450			1000	

CIE- Continuous Internal Evaluation ESE – End Semester Examination

## PROFESSIONAL ELECTIVE-I

Sr. No.	Name of the Subject	Name of the concern Branch
01	Art Appreciation - I	
02	Art in Architecture – I	
03	Graphic and Product Design - I	

#### PROFESSIONAL ELECTIVE-II

Sr. No.	Name of the Subject	Name of the concern Branch
01	Art Appreciation – II	
02	Art in Architecture – II	
03	Graphic and Product Design - II	

Candidate contact hours per week : 30 Hours(Minimum)	Total Marks for B.ArchII;Sem III & IV :2300											
Theory/Tutorial Duration : 60 Minutes and Studio Duration : 60     Minutes	Total Credits for B.ArchII (Semester III & IV) :56											
Minutes	Minutes											
• There shall be separate passing for theory and practical (term work)c	ourses.											

## THIRD YEAR ARCHITECTURE ENGINEERING – CBCS PATTERN

									SEMES'	TER -V												
						CHING										MINA	TION S	CHEN	1E			
Sr.	se ect	7	THEOR	Y	T	UTORIA	L	PRA	CTICAL/ST	<b>FUDIO</b>			T	HEO	RY		VIV	A-VO	CE	TEI	RM WO	ORK
No	Course (Subject Title)	Credits	No. of Lecture	Hours	Credits	No. of Lecture	Hours	Credits	No. of Lecture	Hours	1	Hours	Mode	Marks	Total Marks	Min	Hours	Max	Min	Hours	Max	Min
1	PC - 501**	1	1	1				9	6	6								100	45	6	100	50
2	BS & AE – 502 *	1	1	1				2	3	3	:	3	ESE	80	80	36		100	45	3	70	35
3	BS & AE – 503 **	3	3	3							3		ESE	80	80	36	3OS ines				20	10
4	PC – 504 **	1	1	1				1	2	2		3	ESE	80	80	36	As per BOS Guidelines			2	20	10
5	PC – 505 **	1	1	1				1	2	2		3	ESE	80	80	36	A G			2	20	10
6	BS & AE – 506	1	1	1				1	2	2		2	ESE	50	50	23				2	50	25
7	PC - 507	1	1	1				2	3	3			-	-	-	-				3	50	25
8	PC - 508	1	1	1				1	2	2		2	ESE	50	50	23				2	50	25
	TOTAL	10	10	10				17	20	20					420			200		•	380	
							1		SEMEST	ΓER –VI									1	ı	1	
1	PC - 601 **	1	1	1				9	6	6		12	ESE	100	100	45		100	45	6	100	50
2	BS & AE - 602 *	1	1	1				2	3	3	4		ESE	80	80	36	S	100	45	3	70	35
3	BS & AE - 603 **	3	3	3								3	ESE	80	80	36	idelin				20	10
4	PC - 604 **	1	1	1				1	2	2			ESE	80	80	36	As per BOS Guidelines			2	20	10
5	PC – 605 **	1	1	1				1	2	2			ESE	80	80	36	er BC			2	20	10
6	BS & AE – 606	1	1	1				1	2	2			ESE	50	50	23	As p			2	50	25
7	PC – 607	1	1	1				2	3	3								100	45	3	50	25

8	PE – 608	1	1	1				1	2	2						50	23	2	50	25
9	BS & AE - 609	3	3	3								ESE	80	80	36				20	10
	TOTAL	13	13	13			-	17	20	20				550		350			400	
	TOTAL	23	23	23				34	40	40				970		550			780	

CIE- Continuous Internal Evaluation ESE – End Semester Examination

# One lecture means period of One Hour (60 Minutes) and One Studio means studio period of One Hour (60 Minutes)

- One lecture means period of One Hour (60 Minutes) and One Studio means studio period of One Hour (60 Minutes)
- Per Semester Periods per week –30
- Total week 15 weeks per semester

Candidate contact hours per week : 30 Hours(Minimum)	Total Marks for B.ArchIII;Sem V & VI :2300
• Theory/Tutorial Duration : 60 Minutes and Practical Duration : 60 Minutes	Total Credits for B.ArchIII (Semester V & VI):57
There shall be separate passing for theory and practical (term work)co	ourses.

<sup>\*</sup> Means combine passing for external oral & theory paper

<sup>\*\*</sup> Means combine passing for internal term work & theory paper & external oral as applicable.

## FOURTH YEAR ARCHITECTURE ENGINEERING - CBCS PATTERN

	SEMESTER -VII																					
	TEACHING SO											EXAMINATION SCHEME										
C	) se (	7	THEOR	Y	TUTORIAL PRACTICAL/STUDIO				THEORY					VIVA-VOCE			TERM WORK		)RK			
Sr. No	Course (Subject Title)	Credits	No. of Lecture	Hours	Credits	No. of Lecture	Hours	Credits	No. of Lecture	Hours		Hours	Mode	Marks	Total Marks	Min	Hours	Max	Min	Hours	Max	Min
1	PC – 701	1	1	1				9	6	6							nes	100	45	6	100	50
2	PC - 702	1	1	1				2	3	3							As per BOS Guidelines	100	45	3	100	50
3	PC-703	1	1	1				2	3	3	3	3	ESE	100	100	45	OS G	50	23	3	50	25
4	BS & AE – 704	3	3	3								3	ESE	100	100	45	per B				50	25
5	PE – 705 **	1	1	1				1	2	2		3	ESE	100	100	45	As			2	50	25
6	PAECC – 706	1	1	1				1	2	2		2	ESE	50	50	23				2	50	25
7	PE – 707	1	1	1				1	2	2			-	-	-	-		50	23	2	50	25
8	PE - 708	1	1	1				1	2	2	-							50	23	2	50	25
	TOTAL	10	10	10				17	20	20	T	_			350			350			500	
	D. D.G.	ı			<u> </u>		1 1		SEMEST	EK –VII	1			ı		ı	T	ı		T	T 1	
1	PAECC - 801							15	90 worl days Traini	3								100	45		100	50
	TOTAL							15						•				100		•	100	
	1						1				L					1					1	
	TOTAL	10	10	10				32							350			450			600	

- \* Means combine passing for external oral & theory paper
- \*\* Means combine passing for internal term work & theory paper & external oral as applicable.
- # One lecture means period of One Hour (60 Minutes) and One Studio means studio period of One Hour (60 Minutes)
  - One lecture means period of One Hour (60 Minutes) and One Studio means studio period of One Hour (60 Minutes)
  - Per Semester Periods per week –30
  - Total week 15 weeks per semester

## CIE- Continuous Internal Evaluation ESE – End Semester Examination

das Internati Evariation ESE - Ena Semester Examination								
• Candidate contact hours per week : 30 Hours(Minimum)	Total Marks for B.ArchIV;Sem VII & VIII :1400							
• Theory/Tutorial Duration : 60 Minutes and Practical Duration : 60	Total Credits for B.ArchIV (Semester VI I& VIII) :42							
Minutes								
There shall be separate passing for theory and practical (term work)courses.								

## FINAL YEAR ARCHITECTURE ENGINEERING - CBCS PATTERN

	SEMESTER –IX									SEMEST	ER –IX											
					TE	ACHING	SCH	EM	Œ							MINA	TION S	SCHEN	1E			
Sr.	Course (Subject Title)	THEORY		Γ	UTORIA	<b>L</b>		PRAC	TICAL/ST	CUDIO		7	THEO	RY		VIV	A-VO	CE	TERM WORK			
No		Credits	No. of Lecture	Hours	Credits	No. of Lecture	Hours		Credits	No. of Lecture	Hours	Hours	Mode	Marks	Total Marks	Min	Hours	Max	Min	Hours	Max	Min
1	PC – 901 **	1	1	1					9	6	6	18	ESE	100	100	45	As per BOS Guidelines	100	45	6	100	50
2	PC - 902	2	2	2					3	6	6						Guide	100	45	6	50	25
3	BS & AE - 903	3	3	3					-	-	-	3	ESE	100	100	45	808				50	25
4	PAECC – 904	3	3	3								3	ESE	100	100	45	s per ]				50	25
5	BS & AE - 905	1	1	1					1	2	2	3	ESE	100	100	45	A				50	25
6	PE – 906	1	1	1					1	2	2							50	23	2	50	25
7	PE – 905	1	1	1					1	2	2							50	23	2	50	25
	TOTAL	12	12	12					15	18	18				400			300			400	
	Ī	I	T			ı				SEMEST	TER – X	I	I	ı			I	ı		ı		
1	PC – 1001	02	02	02					12	8	8						જ	200	90	8	200	100
2	BS & AE - 1002	01	01	01					2	3	3	4	ESE	100	100	45	As per BOS Guidelines	100	45	3	100	50
3	PE- 1003	01	01	01					1	3	3						S Gu	50	23	3	50	25
4	PE - 1004	01	01	01					1	3	3						er BO	50	23	3	50	25
5	SEC - 1005	02	02	02													As p	50	23		50	25
	TOTAL	07	07	07				F	16	17	17		•	•	100		•	450		•	450	
	TOTAL	19	19	19					31	35	35	CIE	C t	<b>T</b>	<b>500</b> ternal Ev	1		<b>750</b>	1.0		850 Examin	

- \* Means combine passing for external oral & theory paper
- \*\* Means combine passing for internal term work & theory paper & external oral as applicable.
- # One lecture means period of One Hour (60 Minutes) and One Studio means studio period of One Hour (60 Minutes)
  - One lecture means period of One Hour (60 Minutes) and One Studio means studio period of One Hour (60 Minutes)
  - Per Semester Periods per week –30
  - Total week 15 weeks per semester

Candidate contact hours per week : 30 Hours(Minimum)	• Total Marks for B.ArchV;Sem IX & X :2100					
• Theory/Tutorial Duration : 60 Minutes and Practical Duration : 60 Minutes	• Total Credits for B.ArchV (Semester IX& X) :50					
There shall be separate passing for theory and practical (term work)courses.						

## COURSE CODE AND DEFINITION

## Semester I

Sr. No	Code No.	Subject	Credits
1.	PC – 101	Aesthetics & visual arts – I	2
2.	PC – 102	Graphics – I	2
3.	PC - 103	**Architectural Design – I	10
4.	PC – 104	** Human Settlement & History of Civilization	2
5.	BS & AE – 105	Building Construction & Material – I	3
6.	BS & AE – 106	** Theory of Structure – I	3
7.	PC - 107	Workshop – I	1
8.	SEC - 108	Communication Skills – I	2
9.	SEC – 109	Computer Technology in Architecture - I	2

## Semester II

Sr. No	Code No.	Subject	Credits
1.	PC - 201	Aesthetics & visual arts – II	2
2.	PC - 202	Graphics – II	2
3.	PC - 203	**Architectural Design – II	10
4.	PC - 204	** Human Settlement & History of Civilization	2
5.	BS & AE – 205	* Building Construction & Material – II	3
6.	BS & AE – 206	** Theory of Structure – II	3
7.	PC - 207	Workshop – II	1
8.	SEC - 208	Communication Skills – II	2
9.	SEC - 209	Computer Technology in Architecture - II	2

## 'Semester III

Sr. No	Code No.	Subject	Credits
1.	PC - 301	Graphics – III	2
2.	PE – 302	Elective – I	2
3.	PC - 303	**Architectural Design – III	10
4.	BS & AE – 304	* Building Construction & Material – III	3
5.	BS & AE – 305	** Theory of Structure – III	3
6.	PC - 306	History of Architecture	2
7.	BS & AE – 307	Climatology & Architecture	2
8.	BS & AE – 308	Building Services – I	2
9.	BA & AE – 309	Environmental Studies	2

## Semester IV

Sr. No	Code No.	Subject	Credits
1.	PC – 401	Graphics – IV	2
2.	PE – 402	Elective – II	2
3.	PC – 403	**Architectural Design – IV	10
4.	BS & AE – 404	* Building Construction & Material – IV	3
5.	BS & AE – 405	** Theory of Structure – IV	3
6.	BS & AE – 406	Surveying & Leveling	2
7.	PC – 407	History of Architecture	2
8.	BS & AE – 408	Building Services – II	2
9.	BA & AE – 409	Environmental Studies	2

## Semester V

Sr. No	Code No.	Subject	Credits
1.	PC - 501	** Architectural Design – IV	10
2.	BS & AE – 502	* Building Construction & Material – IV	3
3.	BS & AE – 503	** Theory of Structure – IV	3
4.	PC - 504	** History of Architecture – II	2
5.	PC - 505	** Estimation Costing & Specification – II	2
6.	BS & AE – 506	Building Services – IV	2
7	DC 507	Working Drawing – II	3
7.	PC – 507	Arch, Graphics & Drawing	
8.	PC - 508	Landscape Architecture	2
٥.	PC - 308	Landscape Design	

## Semester VI

Sr. No	Code No.	Subject	Credits
1.	PC - 601	** Architectural Design – VI	10
2.	BS & AE -602	* Building Construction & Material – VI	3
3.	BS & AE -603	** Theory of Structure –VI	3
4.	PC - 604	** History of Architecture – IV	2
5.	PC - 605	** Estimation Costing & Specification – II	2
6.	BS & AE – 606	Building Services – IV	2
7.	PC – 607	Working Drawing – II Arch, Graphics & Drawing	3
8.	PE – 608	Interior Design	2
9.	BS & AE - 609	Acoustics	3

## Semester VII

Sr. No	Code No.	Subject	Credits		
1.	PC - 701	** Advanced Architectural Design - I	10		
2.	PC-702	Environmental Planning & Urban Design	3		
3.	PC - 703	Advanced Building Specification Valuation and	3		
3.	PC - 703	Project Management System			
4.	BS & AE – 704	Advanced Structure – I			
5.	PE – 705	Urban and Regional Planning	2		
6.	PAECC - 706	Research Methodology	2		
7.	PE – 707	Elective – IV	2		
8.	PE – 708	Elective - V	2		

## Semester VIII

Sr. No	Code No.	Subject	Credits
1.	PAECC - 801	Practical Training and Report	15

## Semester IX

Sr. No	Code No.	Subject	Credits
1.	PC – 901	**Advanced Architectural Design - 2	10
2	DC 002	Architectural Project 1 + 2	5
2.	PC - 902	(Synopsis, Literature Review, Data Collection)	
3.	BS & AE-903	Advanced Structures -II	3
4.	PAECC- 904	Professional Practice and Building Bye-Laws	3
5.	BS & AE-905	Advanced Services	2
6.	PE – 906	Elective – VI	2
7.	PE – 907	Elective - VII	2

Semester X

Sr. No	Code No.	Subject	Credits
		Architectural Project III	14
1.	PC - 1001	Case Study/Site/Final Design and Presentation	
		Drawing / Report	
2.	BS & AE -	Advanced Building Construction	3
2.	1002	Training construction	
3.	PE- 1003	Elective – VIII	2
4.	PE - 1004	Elective - IX	2
5.	SEC - 1006	Entrepreneurship Skills for Architects	2

## **ABBREVIATIONS:-**

PC PROFESSIONAL CORE

**BS&AE** BUILDING SCIENCES AND APPLIED ENGINEERING

**EC** ELECTIVE COURSE

**PE** PROFESSIONAL ELECTIVE

**OE** OPEN ELECTIVE

PAECC PROFESSIONAL ABILITY ENHANCEMENT COMPULSORY COURSES

**SEC** SKILL ENHANCEMENT COURSES

## SHIVAJI UNIVERSITY, KOLHAPUR

## SYLLABUS FOR FIRST SEM I - ARCHITECTURE DEGREE COURSE

(PC-101)

## SUBJECT: AESTHETICS AND VISUAL ARTS - I

Lectures -	15	Paper	Sessional Work (Int.)- 100
Studio-	45	Duration	Oral (Ext.) -
Total-	60		Theory -
Total Credit poi	ints- 2		Total 100

#### **COURSE OBJECTIVE:**

To give an artistic orientation to the students to develop fundamental artistic skills.

#### **COURSECONTENTS:**

- Aesthetics as part of LIFE, relation of all fine arts like painting, sculpture, music dance etc. to each other in everyday life ,beauty in human activities and movements, good
  - mediocre and bad taste expression of Artists personality.
- Understand and relationship of surface from space masses, point, line, light, and shade, aesthetics in motion, sound, touch and smell. Aesthetics as part of mind.
- Colour theory, colour circle, various colour schemes and their combinations, general psychological effects of colours.
- Elements of design such as line, form & shape, colour& texture, patterns etc.

#### Reference Books -

- 1) Architecture form, space and order; FRANCIS D.K. CHING; John Miley AndSons.
- 2) Architectural rendering; ALBERT O HALSE; Mcgraw-Hill BookCompany.
- 3) Design Fundamentals In Architecture; V.S.Parmar; Somaiya Publication Pvt.Ltd

## (PC- 102)

## **SUBJECT: GRAPHICS - I**

## SYLLABUS FOR FIRST SEM - ARCHITECTURE DEGREE COURSE

Lectures-	15	Paper -	-	Sessional Work (Int.)	-50
Studio-	45	Duration-	-	Oral(Ext.) -	
Total-	60			Theory-	-
Total Credit points- 2				Total-	50

#### **COURSE OBJECTIVE:**

The purpose of this subject is to develop ability to present all the elements of design in graphic forms to enhance the potential of a student in presenting concepts and ideas in terms of drawing using different techniques.

#### **COURSE CONTENTS:**

- Introduction of drawing instruments such as drawing board set-squares tee-square french curve, stencils, different types of pencils and pens and their uses.
- Lettering, size and notation of drawing, symbolic representation of building elements and material, other features as per I.S.I and standard practice.
- Introduction of various media of drawing and presentation such as pencil, charcoal crayon, water colour, sketch pens, inks etc. and exercise using all these media.
- Freehand sketching using different media mentioned above.
- Scale drawing, construction of various metric scales, normally used scale, use of metric scale for various purposes.
- Introduction and understanding of plain elevation and section.
- Measured drawing of small objects, such as building elements, pieces of furniture and small built forms.
- Solid geometry to explain the need of solid geometry in architectural drawings such as techniques of presentingthreedimensionaldrawingintotwodimensionalobjects. Exercise involving geometrical forms, presented in different positions of individual object and then ingroup.
- Principles of orthographic projection, projection on points, lines, planes, solids.

#### **Reference Books**

- 1. Ching Francis D.K.: ArchitecturalGraphics
- 2. Kelsey W. E.: Geometrical & BuildingDrawing
- 3. Leslie Martin: Architecturalgraphics
- 4. B. James: Essential of Drafting
- 5. H. Joseph and Morris: Practical plane and solidgeometry
- 6. Gill Robert: Rendering with pen andink
- 7. Burden Ernest: ArchitecturalDelineation.
- 8. Burden Ernest: Architectural Delineation. Gill, Robert W.; Manual of Rendering with Pen andInk, Thames and Hudson,London,1997.
- 9.JaxThemier, B.W., "How to Paint and Draw", Thames and Hudson,1985.

## (PC-103\*\*)

## SUBJECT: ARCHITECTURE DESIGN - I

## SYLLABUS FOR FIRST SEM - ARCHITECTURE DEGREE COURSE

Lectures-	15	Paper-	-	Sessional Work (	(Int.) -100
Studio-	90	Duration-	-	Oral(Ext.) -	100
Total-	105			Theory-	-
Total Credit p	oints- 10			Total-	200**

#### **COURSE OBJECTIVES**

- To introduce the students to the fundamentals and principles of basic design and toenable them to undertake design by application of basic design principles.
- To comprehend Design as a creative process of choice making and statement of intent.

#### **COURSE CONTENTS**

- What is architecture and what does an architect do? Scope of this activity. Types of services rendered by an Architect.
- Applicationofelementsofdesigntoachievedesignprinciplesandincreative work
- ApproachtoDesignasacontinuousprocessthroughAesthetics,functionand Technology (construction) Basic components of a building and their functions.
- Principal of Design with reference to function, various activities and related spaces. Data collection, Environments, climate, orientation, site conditions, Circulation.
- Study of basic human Needs, Various requirements, standard measurements of Human activities and allocation of Spaces.
- Study & comparison of single units like living spaces, sleeping and cooking spaces, stalls, bus-stops, telephone booths etc. detailed design of single room for simple function, showing relationship with adjoining areas for other activities not more than 25 sq.mtrs.
- Role of interior design in planning and Architecture

#### Reference Book s -

- 1) Time sever standards for building types LatestEditions
- 2) Neufer- architects data latest editions
- 3)Rendering with pen and ink / roberw.gill
- 4) Ching- fdkarchitecture form, van nostandreinhold staff, new york latest editions
- 5)Time saver standards for landscape architecture- latestedition

## (PC-104\*\*)

# SUBJECT : HUMAN SETTLEMENT AND HISTORY OF CIVILISATION - I

## SYLLABUS FOR FRIST SEM - ARCHITECTURE DEGREE COURSE

Lectures-	30	Paper -	01	Sessional Work	(Int.) -50
Studio-	-	Duration-	2 hrs.	Oral(Ext.)-	-
Total-	30			Theory-	50
Total Credit	points-2			Total-	100**

**Note**: Internal marks should be based on assignments, sketches, question bank & seminar.

#### **COURSE OBJECTIVE:**

To study the settlement and the History of Civilization from Prehistoric period and ancient civilization. Settlement pattern and architectural built from have the influence of geography, geology, climate, socio-climate and religious aspect of that particular place, which emphasis the context of specific planning and design approach is required. Comparative study of various civilizations will give the appropriate guideline for the study of settlement and architecture.

#### **COURSE CONTENTS:**

- Prehistoricperiod:
  - Evolution of man, relation in between Man and environment, rise of culture and religion, Stone Age, Bronze Age, Iron Age, Culture and civilization.
- General features/influences of human settlement factor responsible for the development of humansettlement.
- Nile valleycivilization: Influences/aspects, architectural characters, Burial system, Egyptian temple, Egyptian city [city kahun] planning.
- Greek civilization: Influence/ aspects, architectural characters, Study of Greek cities in detail, cityAthens
- Roman civilization: influence /aspect, architectural characters, study of romancities, Roman Militarytown
- Mesopotamian civilization: Influence/aspects, architectural characters, city Babylon, city Ur , ziggurat , Hanging Garden [Sumerian , Assyrian and Babylonian ]
- A: Indus valley civilization- Influence/aspects, architectural characters, Mohenjo-Daro cityplanning
- B: Vedic civilization Vedicvillage

## **Reference books:**

- 1. A History of World Civilization -By James EdgerSwain, Ph.D
- 2. Davies: An Outline history of the world-H. A. Davies, MA
- 3. Town Planning –AbirBandopadhyay
- 4. Town Planning G. K.Hiraskar
- 5. The urban pattern city planning and Design-Arthur B. GallionFAIA Simon Eisner, AICP
- 6. Sir Banister Fletcher's- A history of architecture Revised by J. C.Palmes
- 7. The Great Ages Of World Architecture G. K.Hiraskar
- 8. Human settlement- A planning guide to beginners-K. R.Thooyavan
- 9. Indian architecture -Vedula V L NMurthy.
- \* Means combine passing for external oral & theory paper.
- \*\* Means combine passing for internal term work & theory paper & external oral as applicable

## (BS&AE- 105) SUBJECT:- BUILDING CONSTRUCTION AND MATERIAL – I

## SYLLABUS FOR FIRST SEM - ARCHITECTURE DEGREE COURSE

Lectures -	15	Paper -	01	Sessional Work	(Int.) -50
Studio -	45	Duration-	2 hrs.	Oral (Ext.) -	
Total -	60			Theory -	50
Total Credit p	ooints- 3			Total -	100

Marks weightage: Materials 25%, construction 75%

Note: For theory exams, Separate sections for materials and construction

should be allotted (Materials 25%, construction 75%)

External examination (oral) will be conducted by the university.

#### **COURSE OBJECTIVES**

- To help students understand the basic building elements, their function and behavior Under various conditions with specific reference to load bearing construction.
- To help students to develop a clear understanding of the basic principles of construction And materials suitable for load bearing construction.
- To help students develop and analytical and logical sequence in thinking about structural aspects of architecture.
- To encourage a mix of classroom and field learning.

#### **COURSE CONTENTS**

#### **MATERIALS:**

- <u>Soil</u>: Different types and their origin, Physical properties and effect of weather, water, temperature etc. on different soil types, bearing capacity of commonly met soil and their role in buildingfoundations, angle of repose (introductory only)
- <u>Brick</u>: Composition of earths, standard market and I.S.I. size propertiesasperI.S.I.BrickmanufacturingProcesses, sundriedbrick, special types of bricks, Different uses of brick inconstruction.
- <u>Sand</u>: Pit, river sea sand, gravel, I.S.I. standards use in mortar and concrete, bulkage of stand, impurities insandtheir removal, different grades of sand with respective size and their application I.S.I. standard uses in construction

#### **CONSTRUCTION:**

General introduction: structure load bearing structure

<u>Foundation</u>: simple foundation for masonry load bearing walls, piers pillars;inbrickandstonesloadbearingfoundation;foundationinblack cotton soil; masonry retaining wall.

#### Superstructure

Brick masonry: tools and equipments bonding and its principles; types of brick like headers stretchers king and queen closer etc and theiruse, English and Flemish bond in straight line for stopped end, corner tee and cross junctions up to thickness on two brick thick wall and its combinations; attached and detached piers, buttresses, pilasters, brick on edge wall, sundried brick construction in mud mortar, soil-cement block, expansion joint in masonry compoundwall.

<u>Stone masonry</u>: various types of stone dressing, various types stone joint such as plain, beveled, rebated dowel, clamp joint monolithic construction of columns, quoins, header bond of through stones, various types of stone masonry

such as ashlars and rubble with their different types, composites wall in brick and stone, compound walls.

## Introduction of Bamboo as a Building Element and its Construction details

Lintels and

Chajjas. Hollow, solid

concreteblock

wall.Brick andstone

#### paving

<u>Finishs</u>: plastering, sand faced, neeru finish and other finishing types, various types of pointing. Use of scaffolding, single and double scaffolding for masonry work, bamboo, timber and tubula scaffolding.

#### **REFERENCE BOOKS:**

- 1) Engg. Materials K.S. Rangwala
- 2)Engg.Materials B.K.Agarwal
- 3)Building.Materials –S.K.Duggal
- 4) Building Construction Technology R. Chudley Building
- 5)Construction –Sushil Kumar
- 6)Building Construction –W.B.Mackay
- 7)Building Construction –BindraArora

## (BS&AE—106\*\*)

## SUBJECT: THEORY OF STRUCTURE -I

## SYLLABUS FOR FIRST SEM - ARCHITECTURE DEGREE COURSE

Lectures-	45	Paper-	01	Sessional Work	(Int.) -20
Studio-	-	Duration-	03hrs.	Oral(Ext.) -	-
Total-	45			Theory-	80
Total Credit p	oints-03			Total-	100**

**Note:** The passing in this subject requires min. 45% marks for theory paper, 50% for internal assessment and combined 50% of Total internal and theory paper.

#### **COURSE OBJECTIVES:**

- To Introduce Applied Mechanics as an important Subject for Architecture.
- To Understand Different Systems of Forces and their Equilibrium and that a Building is a System of Forces in Equilibrium.
- To Introduce and Understand Concepts of Support, Support Reactions, Beams, Loads, Bending and Shear.

#### **COURSE OUTLINE:**

- Introduction: aim and object, scope of study.
- Concept of simple load bearing, framed structure & composite structure.
- Loads:Deadload,liveload,windload,snowload,seismicload,conceptualideaandtheir impact on building as a whole, relevant ISCode.
- Force:definition, characteristics and classification of forces. System of forces, composition and resolution of forces. Resultant and equilibrant of coplanar concurrent and non concurrent force systems by analytical & graphical method.
- Moments: moment of force, moment of couple, effect of couple, concept of static equilibrium. Lami's theorem, Equations of static equilibrium, free body diagram.
- Supportreactions: Types of beams, Loading and support conditions and their significance.
- Friction: Types of friction, laws of dry friction, problems on block, wedge and ladder.

**Sessional work:** Minimum Six assignments based on above topics.

#### **REFERANCEBOOKS:**

- 1. Engineering Mechanics RK Bansal and Sanjay Bansal ,Laxmipublications, NewDelhi.
- 2. Engineering Mechanics F.L. Singer, HarperCollinspublications.

<sup>\*</sup> Means combine passing for external oral & theory paper.

<sup>\*\*</sup> Means combine passing for internal term work & theory paper & external oral as applicable

## (PC- 107)

## **SUBJECT:- WORKSHOP – I**

## SYLLABUS FOR FIRST SEM - ARCHITECTURE DEGREE COURSE

Lectures -	-	Paper -	-	Sessional Work(Int.)-	50
Studio-	30	Duration-	-	Oral(Ext.)-	-
Total-	30			Theory-	-
Total Credit p	oints-01			Total-	50

#### **COURSE OBJECTIVES:**

- Introducing students to various materials and techniques used in making Architectural models.
- Enabling Students to make Architectural models for study and presentation.

#### **COURSE CONTENTS**

- Introduction of masonry tools.
- Demonstration of brickwork, stonework, demonstration of plaster and textured finishes. i) Mud ii) Cement iii)Lime.
- Study tours to sources of local building materials and to local building under construction to study their actual use.
- Models for basic design and Architecture design studio work.
- Introduction to modeling with paper, paper board, plastics, plaster of Paris, wood and clay.
- Basic model making technique, different types of material and their techniques.
- Introduction to modeling with paper, paper board, plastics, plaster of Paris, wood and clay.

#### RECOMMENDED BOOKS

- John Taylor, Model Building for Architects and Engineers
- Rolf Janke, Architectural Models

## (SEC- 108)

## COMMUNICATION SKILLS - I SYLLABUS FOR FIRST SEM - ARCHITECTURE DEGREE COURSE

Lectures-	30	Paper -	-	Sessional Work(Int.)-	50
Studio-	-	Duration-	-	Oral(Ext.)-	-
Total-	30			Theory-	-
Total Credit p	ooints-02			Total-	50

#### **COURSE OBJECTIVES:**

- Introducing various communication skills in the society.
- Enabling Students to make presentation in front of mass communication.

#### **COURSE CONTENTS**

#### 1) Communication

- Introduction to Communication Definition, need & importance Process of Communication
- Types of Communication Forms of Communication Barriers to Communication

## 2) Techniques of Communication

- A)Verbal Communication: Techniques of GD &Interview
- B) Non-Verbal Communication: Body Language

#### 3) Essay Writing

• Descriptive (Current Topics)

#### 4) Rapid Review of Grammar

- Tenses
- Active/Passivevoice
- Direct-Indirect
- Affirmative, Negative, Assertive, Exclamatory, Interrogative.
- Q-Tag, Remove"too"

#### 5) Correction of Common Errors

**Note**: The internal marks will be based on tutorials and individual performance.

## (SEC- 109)

## SUBJECT: COMPUTER TECHNOLOGY IN ARCHITECTURE -1

Lectures- 15	Paper	Internal -50
Studio - 15	DurationHours	External
Total - 30		Theory
Total Credit Points- 2		Total -50

#### CAD AND ADVANCED APPLIATION

Creating and organizing 2-d drawing All 2 Dimensional drawing commands. All 2 Dimensional edit commands.

Inquiry commands.

Setting for drawing

Concept of layer, line types, Dimensions

Introduction to block and application Texts and fonts

Output of the drawing through printer or plotters Different setting of drawing snap modeetc.

Hatch its patterns.

Isometric drawing

Different types of styles e.g. dimension style, text, style, symbol library, drawing at different scales, composition of drawing at different scales e.g. municipal drawing (concept of paper space & model space).

Minimum one drawing showing plan, elevation., section of a project be submitted as sessional work.

## SHIVAJI UNIVERSITY, KOLHAPUR

## SYLLABUS FOR FIRST YEAR SEM II- ARCHITECTURE DEGREE COURSE

(PC 201)

## SUBJECT: AESTHESTICS AND VISUAL ARTS-II

Lectures-	15	Paper-	-	Sessional Work (	Int.) -100
Studio -	45	Duration-	-	Oral(Ext.) -	-
Total-	60			Theory-	-
Total Credit	points- 2			Total-	100

#### **COURSE OBJECTIVE:**

Thepurposeofthissubjectistocreateawarenessaboutprincipleofgooddesigntodevelop goodaesthetictasteunderstandofArchitectureanddifferentfineartsandtheirapplicationtostudy the principle of architecture, interior design, house design, advertising, city planning etc. In each of these fields, one works with sizes, shapes, colours and texture etc. which are created and arranged in accordance with the principles of aesthesis.

#### **COURSE CONTENTS:**

- Study of texture.
- Definition of design, functional and decorative design requirements of good design, principleofdesignsuchasharmony&unity,proportions,constast,scale,balance,rhythm, emphasis expression and character.
- Composition of group of objects, forms positive and negative spaces.
- Approach to architecture and design and space.
- Planning for different activities building for them.
- Function- planning form in side out.
- Forms development from the above.

The sessional work shall consist of study of models photographs.

Project report writing and seminar on any one selected projected based on this subject.

#### **Reference Books -**

- 1) Architecture form, space and order; FRANCIS D.K. CHING; John Miley AndSons.
- 2) Architectural rendering; ALBERT O HALSE; Mcgraw-Hill BookCompany.
- 3) Design Fundamentals In Architecture; V.S.Parmar; Somaiya Publication Pvt.Ltd

## (PC 202)

## **SUBJECT: GRAPHICS II**

Lectures-	15	Paper-	1	Sessional Work	(Int.) -50
Studio -	45	Duration-	3 hrs.	Oral(Ext.) -	-
Total-	60			Theory-	100
Total Credit p	oints-2			Total-	150

#### **COURSE OBJECTIVE:**

To introduce the students to the fundamental techniques of Architectural drawings and to enhance their visualization skills.

#### **COURSE CONTENTS:**

#### PART -I

- Isometric and Axonometric projections.
- Interpenetration of geometric solids, forms and section of solids.
- Surface development of simple and complex objects.

#### PART-II

• Application of subject Computer – I in Graphics –I

Drafting of measured building elements / small building units using computer.

Isometric and axonometric views using computer.

## **Reference Books**

- 1. Ching Francis D.K.: ArchitecturalGraphics
- 2. Kelsey W. E.: Geometrical & BuildingDrawing
- 3. Leslie Martin: Architectural graphics
- 4. B. James: Essential of Drafting
- 5. H. Joseph and Morris: Practical plane and solid geometry
- 6. Gill Robert: Rendering with pen andink
- 7. Burden Ernest: Architectural Delineation.
- 8. Burden Ernest: Architectural Delineation. Gill, Robert W.; Manual of Rendering with Penand Ink, Thamesand

Hudson, London, 1997.

9.JaxThemier, B.W., "How to Paint and Draw", Thames and Hudson, 1985.

## (PC-203\*\*)

## SUBJECT: ARCHITECTURE DESIGN II

Lectures-	15	Paper-	-	Sessional Work	(Int.) -100
Studio -	90	Duration-	-	Oral(Ext.) -	100
Total-	105			Theory-	-
Total Credit	points- 10			Total-	200**

#### **COURSE OBJECTIVE**

- To introduce the students to the fundamentals and principles of basic design and to enable them to undertake design by application of basic design principles.
- To comprehend Design as a creative process of choice making and statement of intent.

#### **COURSE CONTENTS**

- Structure, types of structures and structures techniques
- Elementary, climatology and orientation
- Architecture as one of the visual arts and its inter-relationship with other arts.
- Conceptual sketches developments of above principles and disciplines.
- At the end of year the students should take review of his study of the subject and prepare summary sheet to explain the knowledge gained.
- Designproblemsdealingwithplanningforactivities such as individualliving, units shops, stalls, snacks bars, unilevel activities with three to four functions of total area up to 80 sq. mtrs.
- The students should be encouraged to collect their own data experiments and try various alternative before reaching final solution and should also be encouraged to express their ideas with the help of different media and materials.

#### Reference Book

- 1) Time Sever Standards For Building Types Latest Editions
- 2) Neufer- Architects Data Latest Editions
- 3) Rendering With Pen And Ink / RoberW.Gill
- 4) Ching- Fdk Architecture Form, Van Nostand Reinhold Staff, New York Latest Editions
- 5) Time Saver Standards For Landscape Architecture- Latest Edition

## (PC- 204\*\*)

## **SUBJECT: HUMAN SETTLEMENT AND**

## **HISTORY OF CIVILISATION - II**

Lectures-	30	Paper-	01	Sessional Work	(Int.) -50
Studio-	-	Duration-	02 hrs.	Oral(Ext.) -	-
Total-	30			Theory-	50
Total Credit p	points-2			Total-	100**

**Note:** Internal marks should be based on assignments, sketches, question bank & seminar.

**COURSE OBJECTIVE**: To study of settlement of development of civilization from medieval period to modern period. Study should emphasize a development phases of civilization with reference to socio-cultural, religion, climate geography and geological aspect. Comparative study of various civilization

#### **COURSE CONTENTS:**

Medieval Period – Study of settlement in Europe and India, Medieval Cities [Indian and western]

- Renaissance Period study of settlement in Europe and in India Renaissance city Jaipur, Baroque city planning city of Versailles
- Industrial Revolution: Impact of industrial revolution in development of transportation and communication, concept of factory town, City beautiful movement
- Plan for community Robert Owen, satellite town And Garden city, Gedian Triad and urban renewal, Theory of Dynapolis C.A.Doxiadis.
- Evolution ofcities
- Neighbourhood Planning Stein and Perry -Example- Radburnlayout
- Modern town planning in India
- Example Chandigarh and Gandhinagar.

#### **Reference books:**

- 1. A History of World Civilization -By James EdgerSwain, Ph.D
- 2. Davies: An Outline history of the world-H. A. Davies, MA
- 3. Town Planning –AbirBandopadhyay
- 4. Town Planning G. K.Hiraskar

- 5. The urban pattern city planning and Design-Arthur B. GallionFAIA Simon Eisner, AICP
- 6. Sir Banister Fletcher's- A history of architecture Revised by J. C.Palmes
- 7. The Great Ages Of World Architecture G. K.Hiraskar
- 8. Human settlement- A planning guide to beginners-K. R.Thooyavan
- 9. Indian architecture Vedula V L NMurthy
- \* Means combine passing for external oral & theory paper.
- \*\* Means combine passing for internal term work & theory paper & external oral as applicable

## (BS & AE-205) SUBJECT:- BUILDING CONSTRUCTION AND MATERIAL - II

Lectures-	15	Paper-	01	Sessional Work	(Int.) - 50
Studio -	45	Duration-	03 hrs.	Oral(Ext.) -	100
Total-	60			Theory-	100
Total Credit	points- 3			Total-	250

External examination (oral) will be conducted by the university.

#### **COURSE OBJECTIVES**

- To help students understand the basic building elements, their function and behavior Under various conditions with specific reference to load bearing construction.
- To help students to develop a clear understanding of the basic principles of construction And materials suitable for load bearing construction.
- To help students develop and analytical and logical sequence in thinking about structural aspects of architecture.
- To encourage a mix of classroom and field learning.

## COURSE CONTENTS

#### **MATERIALS:**

- <u>Stones</u>: Building stones, types of rocks, method of quarrying origin and compositionofstones, properties of goodstones natural bed, various types of stone dressings defects in stone, stones used in construction, uses in construction, aggregates.
- <u>Lime</u>: Lime ore stone, quarrying and collection composition and physical propertiesmethodofburningoflimeore,quicklime,fatlime,hydrauliclime mortar mix, method of preparation, neeru, plaster, efflorescence, peeling, flaking, blistering, use of surkhi, I.S.I. standards, lime wash, uses in construction.

#### **CONSTRUCTION:**

Types of Arches in bricks, stones construction method & centring for Arch.

Cornices, canopy and porch in brick and stones.

<u>Doors and windows</u> such as ledged, braced, battened, false paneled door, simple glazed and wooden paneled.

<u>Roof:</u>rooflayoutridge,hipvalley,gableeavesetc.typesofsimplepitchedroofsuch as lean to couple, close couple and ,collar and, material and details of roof covering such as thatch Mangalore and other patent tiles country tiles and shingles.

#### **REFERENCE BOOKS:**

1) Engg. Materials – K.S. Rangwala

- 2) Engg.Materials B.K.Agarwal
- 3)Building.Materials –S.K.Duggal
- 4)Building Construction Technology –R.Chudley Building
- 5)Construction –Sushil Kumar
- 6) Building Construction –W.B.Mackay
- 7)Building Construction –Bindra Arora

## (BS&AE-206\*\*) SUBJECT : THEORY OF STRUCTURE –II

Lectures-	45	Paper-	01	Sessional Work (In	t.) -20
Studio-	-	Duration-	03 hrs.	Oral(Ext.) -	-
Total-	45			Theory-	80
Total Credit p	ooints-3			Total-	100**

**Note:** The passing in this subject requires min. 45% marks for theory paper, 50% for internal assessment and combined 50% of Total internal and theory paper.

#### **COURSE OBJECTIVES:**

- To Introduce Applied Mechanics as an important Subject for Architecture.
- To Understand Different Systems of Forces and their Equilibrium and that a Building is a System of Forces in Equilibrium.
- To Introduce and Understand Concepts of Support, Support Reactions, Beams, Loads, Bending and Shear.

#### **COURSE OUTLINE:**

- Analysis of trusses: Definition of perfect, deficient & redundant trusses. Analysis of determinate trusses by method of joints, sections and graphical method.
- SimpleStressesandstrains:concept,definitions,units,typesofstressesandstrains.Stress strain curve, safe stresses, factor of safety, different types of safe stress as per ISI code for differentmaterialsliketimber,steel.Hook'slaw,typicalstressstrainbehaviorforsteeland concrete.
- Elastic constants: modulus of elasticity, Poisson's ratio, modulus of rigidity, bulk modulus, shears modulus and their relations.
- Properties of sections: centre of gravity, moment of inertia, modulus of section, radius of gyration of simple symmetrical and unsymmetrical sections including built up sections.
- Bending Moment & Shear force: concept of shear force and bending moment. BMD & SFD for statically determinate simply supported and cantilever beams subjected to combinations of concentrated, uniformly distributed, uniformly varying loads. Point of contra flexure in simply supported beams with overhang.

**Sessional work:** Minimum Six assignments based on above topics.

#### REFERANCE BOOKS:

- 1 Strength of Materials R.K. Bansal, Laxmi publications, New Delhi.
- 2 Strength of Materials R.S. Khurmi, S. Chand & Company, New Delhi.

## (PC-207)

## SUBJECT:- WORKSHOP - II

Lectures -	-	Paper-	-	Sessional Work (1	Int.) -50
Studio -	30	Duration-		Oral(Ext.) -	-
Total-	30			Theory-	-
Total Credit p	oints-1			Total-	50

#### **COURSE OBJECTIVE:**

To develop the ability to appreciate the three dimensional implications of design and to introduce the students to the techniques of model making.

#### **COURSE CONTENTS**

- Introduction of carpentry tools and machines.
- Different types of joints and their function.
- Clay work, brick, cob, wattle and daub, rammed earth Masonry construction- walls, arches and corbel.
- Marking of geometrical forms on the ground.
- Study tours to sources of local building materials and to local building under construction to study their actual use.
- Introduction to modeling with paper, paper board, plastics, plaster of Paris, wood and clay.

## (SEC- 208) SUBJECT :- COMMUNICATION SKILL- II

Lectures-	30	Paper-	-	Sessional Work (	Int.) -50
Studio-	-	Duration-	-	Oral(Ext.)-	-
Total-	30			Theory-	-
Total Credit	points-2			Total-	50

#### **COURSE OBJECTIVES:**

- Introducing various communication skills in the society.
- Enabling Students to make presentation in front of mass communication.

#### **COURSE CONTENTS**

## 1) Paragraph Writing

• Techniques of Paragraph Writing

#### 2) Soft Skills

- Definition, need &significance
- Types of Soft Skill

## 3) Techniques of Professional Correspondence

- Importance
- Techniques
- Types-Enquiry, Order, Complaint, & Invitation letters withreplies
- Application Letters with Resume.

## 4) Precis Writing

- Importance
- Techniques

#### 5) Presentation Skills

## (SEC- 209)

#### SUBJECT: COMPUTER TECHNOLOGY IN ARCHITECTURE - IV

Lectures - 15	Paper	Internal - 50
Studio - 15	Duration	External
Total - 30		Theory
Total Credit Points- 1		Total - 50

#### **COURSE OBJECTIVE**

Different types of styles e.g. dimension style, text, style, symbol library, drawing at different scales, composition of drawing at different scales e.g. municipal drawing (concept of paper space & model space).

his course is an introduction to computational design using a range of techniques from NURBS modeling, simple programming and parametric modeling to basic digital fabrication using different types of software's.

#### **COURSE CONTENTS**

Concept of 3D modeling, Introduction to 3D Digital modeling. Study climatic aspect like shades and shadows of 3D Digital models.

Digital3DmodelofsmallscaleHistoricalBuilding/climateresponsivebuilding.Con cept of UCS 3 Dimensional drawings primitive mesh and surfaces. Viewing commands &viewpoints.

#### INTRODUCTION TO SHADING & RENDERING.

Rendering of the plans, sections, elevations, perspectives using different presentation Software's. Introduction to interactive multimedia technology for design presentation. Introduction to other drafting & presentation software's.

Developing skills in non-graphic applications on computer as required for architectural profession and office management such as Word processing, Spreadsheets, Power Point presentation, Databases etc.

#### **Assessment:**

- Drawing municipal drawing ofbunglow
- One 3d project of bunglow (min-2bhk) with rendered
- Symbollibrary