Appendix- 'B' Item No. Senate / 96.3

BACHELOR OF ARCHITECTURE COMPONENT WISE DISTRIBUTION

Main Curriculum	Seek Common and a	Approved Credits	Approved	Proposed Credits for	Proposed Credits		
Components	Sub Components	for B.Arch.	Credits Range	B.Arch. by Department	Range		
	HSSC	5		5			
	HSSEC	6		6			
	MC	3		3			
Institute Core	BSC	12-20	52-58	12	52		
Course	ESC	8-20	32-38	15	52		
	DSC	4		4			
	ESSC	3		3			
	ТМ	4		4			
	CCCC	TBD		74			
	AI/ML	2		2			
Program Core Course	Engg. Analysis and design (design thinking based project)/Industry Oriented Problem Solving/ Lab based Project/ Practical Problem/ Case study	TBD	133	12	128		
	Technical Communication	2		2			
	Internship/Professional Training	TBD		12			
	PEC	TBD		18			
	TEB	6-8		8			
	OEC	9-12	9-12	9-12	9-12		
	CORE	2	2	2	2		
	Total	190-2	200	191-1	94		
	MSC/DHC	18/2	20	18/20			
	Grand Total			209-2	14		

DEPARTMENT OF ARCHITECTURE & PLANNING INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

Program Code:110-Bachelor of ArchitectureDepartment:AR - Architecture & Planning

Teaching Scheme

Year	Credits in Autumn Semester	Credits in Spring Semester	Credits (Year-wise)
1	23	23	46
2	24/25	24/25	48/50
3	23/24	24	47/48
4	17	12	29
5	21	0	21
Grand Total			191-194
Total with Minor Specialization Courses		al 18-20 credits the parentheses)	209-214

	Components	Maximum	Minimum	Comments
	Discipline (DIS) 20		10	To be evaluated by DoSW
	NCC/NSS/NSO	8	4	To be evaluated by DoSW
Non-Credit Elements (NCE)	Internship (INT)	32	10	1 week internship= 1 unit (To be coordinated by departments/centres/school)
Non-Creat Elements (NCE)	Participation in professional development programs by Industry experts/ field experts (PPD -1, PPD-2 & PPD-3)	12	6	To be coordinated by departments/centres/school (2 nd , 3 rd and 4 th Years)
	Μ			

Program Code:110 – Bachelor of ArchitectureDepartment:AR – Architecture & PlanningYear:I

		Teaching Scheme				Contact Irs/We		Dur	kam ation rs.)		Relati	ve Weigł	nts(%)	
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T/D /I	P/S	Theory	Practical	CWS	PRS	MTE	ETE	PRE
		1	(Autumn)								I	
1	HSI-101	Soft Skills	HSSC	3	2	0	2	2	0	10-25	25	15-25	30-40	-
2	MAI-101	Mathematics-I	BSC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
3	PHI-101	Physics-I	BSC	4	3	1	2/2	3	0	15-30	20	15-25	30-40	-
4	TMI-101	Tinkering and Mentoring	TMI	4 T-2	-	-	-	-	-	70	30	-	-	-
				M-2	2	0	0	2	-	50	-	-	50	-
5	ARC-101	Computer Programming for Architects	PCC	4	1	2	2	3	0	20 - 30	20 - 30	20 - 30	20-30	-
6	ARC-103	Foundation Studio-I	PCC	4	1	1	4	0	7	-	80	20	-	-
		Total		23										
				(Spring)										
1	HSI-102	Indian Knowledge System	HSSC	2	2	0	0	3	0	20-35	-	20-30	40-50	-
2	MAI-102	Mathematics - II	BSC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
3	CEE-106	Geospatial Techniques and Programming	ESC	4	3	0	2	3	0	10-25	25	15-25	30-40	-
4	ESS-101	Environmental Science and Sustainability	ESSC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
5	ARC-102	Foundation Studio-II	PCC	4	1	1	4	0	7	-	80	20	-	-
6	ARC-104	Building Materials & Construction-I	PCC	3	1	0	4	3	0	-	60	20	-	20
7	ARC-106	Climatology in Architecture	PCC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
		Total		23										

Program Code	:	110 – Bachelor of Architecture
Department	:	AR – Architecture & Planning
Year	:	II

		Teaching Scheme			-	Contact irs/We		Dur	kam ation rs.)		Relati	ve Weigh	nts (%)	
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T/D /I	P/S	Theory	Practical	CWS	PRS	MTE	ETE	PRE
			(A	lutumn	I)			1						
1	HSSEC-I	HSS Elective Course-I	HSSEC	3										
2	OEC-I	Open Elective Course-I	OEC	3/4										
3	MSI-101	Fundamentals of Management	MC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
4	ARC-201	Architectural Design Studio-I	PCC	5	1	2	4	0	7	-	80	20	-	-
5	ARC-203	Building Materials & Construction-II	PCC	3	1	0	4	3	0		40 - 60	20 - 30	20-30	-
6	ARC-205	History of Architecture-I	PCC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
7	CEE-103	Theory of Structures	ESC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
		Total		24/25										
			(\$	Spring)										
1	ARC-202	Computer Aided Architectural Design Studio-II	PCC	5	1	2	4	0	7	-	80	20	-	-
2	ARC-204	Building Materials & Construction-III	PCC	3	1	0	4	3	0		40 - 60	20 - 30	20-30	-
3	ARC-206	History of Architecture - II	PCC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
4	ARC-208	Principles of Architecture	PCC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
5	ARC-210	Landscape Design and Site Development	PCC	3	2	0	2	3	0	10-25	25	15-25	30-40	-
6	OEC-II	Open Elective Course-II	OEC	3/4										
7	DAI-101	Data Science	DSC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
		Total		24/25										

Program Code:110 – Bachelor of ArchitectureDepartment:AR – Architecture & PlanningYear:III

		Teaching Scheme				Contac irs/We		Dur	am ation rs.)		Relati	ve Weigh	ts (%)	
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T/D/I	P/S	Theory	Practical	CWS	PRS	MTE	ETE	PRE
			(Aut	umn)				•						
1	ARC-301	Integrated Architectural Design Studio-III	PCC	5	1	2	4	0	7	-	80	20	-	-
2	ARC-303	Building Services (Water Supply and Sanitation)	PCC	3	1	1	3	3	0	20-35	-	20-30	40-50	-
3	ARC-351	Fundamental of AI/ML	PCC	2	1	1	0	-	-	20-35	-	20-30	40-50	-
4	CEE-104	Design of Reinforced Concrete Elements	ESC	4	3	1	2/2	3	0	15-30	20	15-25	30-40	-
5	OEC-III	Open Elective Course-III	OEC	3/4										
6	HSSEC-II	HSS Elective Course-II	HSSEC	3										
7	ART-I	Talent Enhancement Course-I	TEB	3	2	1	0	3	0	20-35	-	20-30	40-50	-
		Total		23/24										
			(Spr	ing)			•			I		1		
1	ARC-302	Building Services (HVAC & Electrical Systems)	PCC	3	1	1	3	3	0	20-35	-	20-30	40-50	-
2	ARC-304	Contemporary World Architecture	PCC	3	2	1	0			20-35	-	20-30	40-50	-
3	CEE-105	Design of Steel Elements	ESC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
4	ART-II	Talent Enhancement Course-II	TEB	5	1	2	4	0	7	-	80	20	-	-
5	ARL-I	Program Elective-I	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
6	ARL-II	Program Elective-II	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
7	ARC-399	Community Outreach	CORE	2		•				•	100	•	•	
8	ARC-391	Technical Communication	PCC	2	1	1	0	-	-	50	-	-	50	-
9	MSC/DH	Minor Specialization Course-I/ Departmental	MSC/DH	3/4										
	C-I	Honours Course-I	С	24/										
		Total		24/ 27-28										

Program Code	:	110 – Bachelor of Architecture
Department	:	AR – Architecture & Planning
Year	:	IV

		Teaching Scheme				ontact rs/We		Dur	am ation rs.)		Rel	ative Wei	ghts (%))
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T/D /I	P/S	Theory	Practical	CWS	PRS	MTE	ETE	PRE
			I	(Autun	nn)		1							
1	ARC-401	Integrated Architectural Design Studio-IV	PCC	5	1	2	4	0	7	-	80	20	-	-
2	ARC-403	Working Drawing, Specification and Estimation	PCC	3	1	0	4	0	3	-	40 - 60	20 - 30	-	20 - 30
3	ARC-405	Construction Planning and Management	PCC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
4	ARL-III	Program Elective-III	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
5	ARL-IV	Program Elective-IV	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
6	MSC/DH C-II	Minor Specialization Course-II/ Departmental Honours Course-II	MSC/DH C	3/4										
7	MSC/DHC - III	Minor Specialization Course-III/ Departmental Honours Course-III	MSC/DH C	3/4										
		Total		17/ 23-25										
				(Sprin	g)									
1	ARC-402	Professional Training	PCC	12	-	-	-	-	-	-	-	-	-	100
		Total		12										

Program Code	:	110 – Bachelor of Architecture
Department	:	AR – Architecture & Planning
Year	:	V

		Teaching Scheme				Contact 1rs/Wee		Dur	am ation rs.)		Relat	ive Weig	hts (%)	
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T/D/ I	P/S	Theory	Practical	CWS	PRS	MTE	ETE	PRE
			(Aut	umn)				1						1
1	ARP-501	Design Thesis – Project	PCC	12	0	2	0	-	-	-	-	-	-	100
2	ARC-503	Professional Practice, Valuation & Arbitration	PCC	3	2	1	0	3	-	20-35	-	20-30	40-50	-
3	ARL-V	Program Elective-V	PEC	3	2	1	0	3	-	20-35	-	20-30	40-50	-
4	ARL-VI	Program Elective-VI	PEC	3	2	1	0	3	-	20-35	-	20-30	40-50	-
5	MSC/DHC -IV	Minor Specialization Course-IV/ Departmental Honours Course-IV	MSC/DHC	3/4										
6	MSC/DHC - V	Minor Specialization Course-V/ Departmental Honours Course-V	MSC/DHC	3/4										
		Total		21/ 27-29										
			(Spr	ring)										
1	ARP-502	Internship	NCE	Report	and S	eminar								

List of Program Elective Courses

		Teaching Scheme				ntact s/Week		Exam.	Duration		Rel	ative Weig	ht (%)	
S. No.	Sub Code	Course Title	Sub. Area	Credits	L	T/D/I	P/S	Theory	Practical	CWS	PRS	MTE	ETE	PRE
		1		Progran	1 Electiv	e - 1		1					<u> </u>	
1	ARL-301	Structure and Architecture	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
2	ARL-303	Applied Art and Visual Sensitivity	PEC	3	2	1	0	3	0	20-35	1	20-30	40-50	-
				Progran	ı Electiv	e - 2								
3	ARL-302	Product Design Prototyping and Fabrication	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
4	ARL-304	Industrialized Construction and Technology	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
				Program	n Electiv	/e -3								
5	ARL-401	Modern Indian Architecture	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
6	ARL-403	Vernacular Architecture	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
	1	1		Program	n Electiv	/e -4		1					11	
7	ARL-402	Disaster Resilient Built Environments	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
8	ARL-404	Acoustics and Illumination	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
	1	1		Progran	1 Electiv	e - 5		1					11	
9	ARL-501	Hill Architecture	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
10	ARL-503	Housing and Real Estate	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
				Progran	1 Electiv	e - 6		1					11	
11	ARL-502	Architecture and Urban Conservation	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	-
12	ARL-504	Architectural Journalism	PEC	3	2	1	0	3	0	20-35	-	20-30	40-50	_

List of Talent Enhancement Course

Teaching Scheme				Contact Hours/Week		Exam Duration		Relative Weight (%)						
S. No.	Course Code	Course Title	Area	Cr.	L	Т	Р	Th.	Pr.	C W S	PRS	МТЕ	ЕТЕ	PRE
TEB – A (Interior Design)														
1	ART-101	Interior Design	TEB	3	2	1	0	3	0	20-35	-	20-30	40-50	-
2	ART-102	Interior Design Studio	TEB	5	1	2	4	0	7	-	80	20	-	-
TEB-B (Universal Design)														
1	ART-103	Universal Design and Accessibility Planning	TEB	3	2	1	0	3	0	20-35	-	20-30	40-50	-
2	ART-104	Design for Universal Access	TEB	5	1	2	4	0	7	-	80	20	-	-
TEB-C (Urban Design) 1 ART-105 Urban Design TEB 3 2 1 0 3 0 20-35 - 20-30 40-50 -														
2	ART-106	Urban Design for Selected Typology	TEB	5	1	2	4	0	7	-	80	20 20	-	-
TEB-D (Sustainable Built Environment)														
1	ART-107	Sustainable Built Environment (SBE)	TEB	3	2	1	0	3	0	20-35	-	20-30	40-50	-
2	ART-108	SBE Design for Indian Climatic Zones	TEB	5	1	2	4	0	7	-	80	20	-	-
TEB-E (Urban Planning)														
1	ART-109	Urban Planning	TEB	3	2	1	0	3	0	20-35	-	20-30	40-50	-
2	ART-110	Urban Planning Studio	TEB	5	1	2	4	0	7	-	80	20	-	-
TEB-F (Human Settlement Planning)														
1	ART-111	Ekistics	TEB	3	2	1	0	3	0	20-35	-	20-30	40-50	-
2	ART-112	Settlement Planning	TEB	5	1	2	4	0	7	-	80	20	-	-

Minor Specialisation Courses (20 credits)

SIno.	Code	Course Semester		Credit
1	ARC-104	Building Materials & Construction-I	Spring	3
2	ARC-106	Climatology in Architecture Spr		3
3	ARC-203	Building Materials and Construction-II	Autumn	3
4	ARC-206	History of Architecture-I	Autumn	3
5	ARC-204	Building Materials and Construction-III	Spring	3
6	ARC-205	History of Architecture-II	Autumn	3
7	ARC-208	Principles of Architecture	Autumn	3
8	ARC-210	Landscape Design and Site Development	Spring	3
9	ARC-304	Contemporary World Architecture	Spring	3
10	ARC-405	Construction Planning and Management	Autumn	3
11	ARC-503	Professional Practice, Valuation & Arbitration	Spring	3

Departmental Honours Courses (20 credits)

A. Elective courses from B.Arch over and above the minimum B. Any of the following courses from M.Arch/MURP basket

SI no.	Code	Course	Credit
1	ARC-603	Contemporary Architecture-Theories and Trends	3
2	ARC-605 Urban Design		3
3	ARC-607	Advanced Building Technologies	3
4	ARC-655 Ecology and Sustainable Development		3
5	ARC-657	Planning Theory and Techniques	3
6	ARC-659	Housing	3
7	ARC-661	Planning Legislation and Governance	3
8	ARC-604	Sustainable Built Environment	4
9	ARC-606	Megastructures	3
10	ARC-654	Infrastructure Planning	4
11	ARC-656	Rural Planning and Development	3