

SCHOOL OF ARCHITECTURE, SCIENCE AND TECHNOLOGY  
YASHWANTRAO CHAVAN MAHARASHTRA OPEN UNIVERSITY

**Syllabus**  
**V42:M.Arch.**  
**Construction**  
**Management**

2011

AST, YCMOU, NASHIK.-422 222, MS, INDIA

# CONTENTS

Basic Information .....	6
Programme Calendar.....	6
Eligibility and Fees.....	7
Semesters and Courses.....	7
Evaluation Pattern.....	9
<b>Semester 01.....</b>	<b>11</b>
<b>A34011: Management theories and Business organizations .....</b>	<b>11</b>
Programme Information.....	11
Course Information .....	11
Presumed Knowledge and Learning Objectives.....	11
Units .....	11
DETAILED SYLLABUS .....	12
Learning Resource Details .....	12
<b>A34012: Financial and Account Management.....</b>	<b>14</b>
Programme Information.....	14
Course Information .....	14
Presumed Knowledge and Learning Objectives.....	14
Units .....	14
DETAILED SYLLABUS .....	14
Learning Resource Details .....	15
<b>A34013: Construction Materials and Machinery.....</b>	<b>16</b>
Programme Information.....	16
Course Information .....	16
Presumed Knowledge and Learning Objectives.....	16
Units .....	16
DETAILED SYLLABUS .....	17
Learning Resource Details .....	17
<b>A34014: Computer Applications in Construction Management.....</b>	<b>18</b>
Programme Information.....	18
Course Information .....	18
Presumed Knowledge and Learning Objectives.....	18
Units .....	18
DETAILED SYLLABUS .....	19
Learning Resource Details .....	19
<b>A34015: Elective 1 Disaster Management .....</b>	<b>20</b>
Programme Information.....	20
Course Information .....	20
Presumed Knowledge and Learning Objectives.....	20
Units .....	20
Detailed Syllabus .....	21
Learning Resource Details .....	21
<b>A32015: Elective 2 Waste Water Management .....</b>	<b>22</b>
Programme Information.....	22
Course Information .....	22
Presumed Knowledge and Learning Objectives.....	22
Units .....	22

Detailed Syllabus .....	23
Learning Resource Details .....	23
<b>A34016: Design Studio 1 .....</b>	<b>24</b>
Programme Information.....	24
Course Information .....	24
Presumed Knowledge and Learning Objectives.....	24
Units .....	24
Detailed Syllabus .....	25
Learning Resource Details .....	25
<b>Semester 02.....</b>	<b>26</b>
<b>A34021: Project Assessment &amp; Management.....</b>	<b>26</b>
Programme Information.....	26
Course Information .....	26
Presumed Knowledge and Learning Objectives.....	26
Units .....	26
DETAILED SYLLABUS .....	27
Learning Resource Details .....	27
<b>A34022: Finance &amp; Economics in Building Industry.....</b>	<b>28</b>
Programme Information.....	28
Course Information .....	28
Presumed Knowledge and Learning Objectives.....	28
Units .....	28
DETAILED SYLLABUS .....	28
Learning Resource Details .....	29
<b>A34023: Advanced Building Construction Techniques .....</b>	<b>30</b>
Programme Information.....	30
Course Information .....	30
Presumed Knowledge and Learning Objectives.....	30
Units .....	30
DETAILED SYLLABUS .....	31
Learning Resource Details .....	31
<b>A34024: Advanced Building Services &amp; Design With Climate .....</b>	<b>33</b>
Programme Information.....	33
Course Information .....	33
Presumed Knowledge and Learning Objectives.....	33
Units .....	33
DETAILED SYLLABUS .....	34
Learning Resource Details .....	35
<b>A34025: Elective 1 Vernacular Architecture.....</b>	<b>36</b>
Programme Information.....	36
Course Information .....	36
Presumed Knowledge and Learning Objectives.....	36
Units .....	36
Detailed Syllabus .....	37
Learning Resource Details .....	37
<b>A32025: Elective 2 Futuristic Architecture .....</b>	<b>39</b>
Programme Information.....	39
Course Information .....	39

Presumed Knowledge and Learning Objectives.....	39
Units .....	39
Detailed Syllabus .....	40
Learning Resource Details .....	40
<b>A34026: Design Studio 2 .....</b>	<b>42</b>
Programme Information.....	42
Course Information .....	42
Presumed Knowledge and Learning Objectives.....	42
Units .....	42
Detailed Syllabus .....	43
Learning Resource Details .....	43
<b>Semester 03.....</b>	<b>44</b>
<b>A34031: Building Byelaws &amp; Arch. Practice .....</b>	<b>44</b>
Programme Information.....	44
Course Information .....	44
Presumed Knowledge and Learning Objectives.....	44
Units .....	44
DETAILED SYLLABUS .....	44
Learning Resource Details .....	45
<b>A34032: Architectural Legalties .....</b>	<b>46</b>
Programme Information.....	46
Course Information .....	46
Presumed Knowledge and Learning Objectives.....	46
Units .....	46
DETAILED SYLLABUS .....	46
Learning Resource Details .....	47
<b>A34033: Architectural Evaluation.....</b>	<b>48</b>
Programme Information.....	48
Course Information .....	48
Presumed Knowledge and Learning Objectives.....	48
Units .....	48
DETAILED SYLLABUS .....	49
Learning Resource Details .....	49
<b>A34034: Architectural Documentation.....</b>	<b>50</b>
Programme Information.....	50
Course Information .....	50
Presumed Knowledge and Learning Objectives.....	50
Units .....	50
DETAILED SYLLABUS .....	51
Learning Resource Details .....	51
<b>A34035: Elective 1 Traffic &amp; Transport Design .....</b>	<b>52</b>
Programme Information.....	52
Course Information .....	52
Presumed Knowledge and Learning Objectives.....	52
Units .....	52
Detailed Syllabus .....	53
Learning Resource Details .....	53
<b>A32035: Elective 2 Infrastructure Services .....</b>	<b>55</b>

Programme Information.....	55
Course Information .....	55
Presumed Knowledge and Learning Objectives.....	55
Units .....	55
Detailed Syllabus .....	55
Learning Resource Details .....	56
<b>A34036: Design Studio 3 .....</b>	<b>57</b>
Programme Information.....	57
Course Information .....	57
Presumed Knowledge and Learning Objectives.....	57
Units .....	57
Detailed Syllabus .....	58
Learning Resource Details .....	58
<b>Semester 04.....</b>	<b>59</b>
<b>A34041: M. Arch. (Construction Management) Dissertation 1 .....</b>	<b>59</b>
Programme Information.....	59
Course Information .....	59
Presumed Knowledge and Learning Objectives.....	59
Units .....	60
Detailed Syllabus .....	60
Learning Resource Details .....	61
<b>A34042: M. Arch. (General) Dissertation 2 .....</b>	<b>62</b>
Programme Information.....	62
Course Information .....	62
Presumed Knowledge and Learning Objectives.....	62
Units .....	62
DETAILED Syllabus .....	63
Learning Resource Details .....	63

# SYLLABUS FOR V42: M.ARCH. (CONSTRUCTION MANAGEMENT) (2011 PATTERN)

## BASIC INFORMATION

1. **Mode of Education:** Full time face-to-face mode enhanced with ELearning support.
2. **Minimum Programme Duration:** 2 years after B.Arch. or Equivalent
3. **Required Study Efforts:** \_\_\_\_\_ Hours in **each** semester
4. **Medium of Instruction:** English
5. **Attendance:** **Minimum 80% attendance for all courses.**
6. **Equivalence Status:**
  - a. Approved by Council of Architecture, New Delhi
  - b. UGC recognized and approved
  - c. DEC recognized and approved
  - d. Recognized by Government of Maharashtra for MPSC jobs

## PROGRAMME CALENDAR

SN	Activity Description	Odd semesters like 01, 03, 05 and 07 From 01-Aug Till 31 Jan	Even semesters like 02, 04, 06 and 08 From 01-Feb Till 31-Jul
<b>Admission</b>			
01	Further Admission	From 05-Jun Till 05-Jul	From 05-Dec Till 05-Jan
02	Fresh Admission	From 05-Jun Till 05-Aug	<b>Not Offered</b>
<b>Teaching - Learning</b>			
03	Teaching - Learning	From 01-Aug Till 13 Nov	From 01-Feb Till 16-May
04	Teaching–Learning Backlog Clearing	From 14-Nov to 04-Dec	From 17-May to 04-Jun
<b>End Exam (EE) Form Submission</b>			
05	EE Form Submission by students at SC	On or Before 30-Sep	On or Before 31-Mar
06	EE Form Submission by SCs at University	On or Before 05-Oct	On or Before 05-Apr
<b>Continuous Assessment (CA) Submission</b>			
07	CA Availability on website	From 01-Aug Till 30 Nov	From 01-Feb Till 30-May
08	CA Submission by Students at SC	01-30 Nov	01-30 May
09	Provisional CA Report by SCs	On or before 31-Dec	On or before 30-Jun
10	Final CA Report Submission by SCs at University	On or before 31-Jan	On or before 31-Jul
<b>End Examination (EE)</b>			
11	EE for Theory Courses	From 05-Dec Till 14-Dec	From 05-Jun Till 14-Jun
12	EE for Practical, STW, SV or PW Courses	Immediately after the last day of end exam for theory courses, but	Immediately after the last day of end exam for theory courses, but

		positively before 05-Jan	positively before 05-Jul
<b>Semester End Vacation</b>			
13	Semester End Vacation	From 08-Jan Till 31-Jan	From 08-Jul Till 31-Jul

## ELIGIBILITY AND FEES

Admission Eligibility	Certification Eligibility	Fees and Deposit / Semester		
		Desc	INR	USD
<ul style="list-style-type: none"> <li>Passed the B.Arch. or its equivalent examination.</li> </ul>	Min 50% or better marks in total 24 courses (subjects) of total 96 credit points at Semesters 11-14.  Aggregate performance and Class in the programme shall be reported on the basis of semesters 3 & 4.	UF	6,400	540
		SCF	21,000	2,100
		ASF	8,000	800
		EF	150/T	15/T
			250/STW	25/STW
			400/SV	40/SV
		<b>Total ≈</b>	<b>40,000</b>	<b>3,600</b>
		<b>LD</b>	<b>2,000</b>	<b>200</b>
<b>AFA</b>	Year 1	15,000		
	Year 2	15,050		

## SEMESTERS AND COURSES

SN	Code	Name	CA	EE	TM	Type	CPs
<b>Semester 1: 24 CPs.</b>							
01	A34011	Management theories and Business organizations	10	40	50	T	2
02	A34012	Financial and account management	10	40	50	T	2
03	A34013	Construction materials and machinery	20	80	100	STW	4
04	A34014	Computer applications in construction management	20	80	100	STW	4
05	A34015	<b>Elective:</b> Disaster management	20	80	100	STW	4
		<b>OR</b>					
	A32015	<b>Elective:</b> Waste water Management					
06	A34016	Construction Management Project Studio 1	40	160	200	SV	8
<b>Semester 2: 24 CPs.</b>							
07	A34021	Construction logistics, project formulation and finance	10	40	50	T	2
08	A34022	Quantitative research methods	10	40	50	T	2
09	A34023	Advanced construction technologies	20	80	100	STW	4
10	A34024	Sustainable building materials	20	80	100	STW	4
11	A34025	<b>Elective:</b> Geographic Mapping Systems (GIS)	20	80	100	STW	4
		<b>OR</b>					
	A32025	<b>Elective:</b> Terrain Assessment & Mapping					
12	A34026	Construction Management Project Studio 2	40	160	200	SV	8
<b>Semester 3: 24 CPs</b>							
13	A34031	Contract management and tendering procedure	10	40	50	T	2
14	A34032	Construction and planning legislation	20	80	100	T	4
15	A34033	Marketing and management	10	40	50	STW	2
16	A34034	Human resource and quality management	20	80	100	STW	4

SN	Code	Name	CA	EE	TM	Type	CPs
17	A34035	<b>Elective:</b> Computer Aided Design & Simulation Techniques	20	80	100	STW	4
	A32035	<b>OR</b> <b>Elective:</b> Intelligent Buildings					
18	A34036	Construction Management Project Studio 3	40	160	200	SV	8
<b>Semester 4: 24 CPs</b>							
19	A34041	M.ARCH. (Construction Management) dissertation 1	40	160	200	SV	8
20	A34041	M.ARCH. (Construction Management)dissertation 2	80	320	400	SV	16



## EVALUATION PATTERN

SN	Type of Course	Continuous Assessment	End Examination
1	Theory (T)	<ol style="list-style-type: none"> <li>Student is required to answer 1 of 1 SAQ, each of 5 marks, on <b>each CP</b></li> <li><b>Single attempt only</b></li> <li><b>Marks:</b> 5 Marks for <b>each CP</b></li> <li><b>Duration:</b> Specified 1 Month</li> </ol>	<ol style="list-style-type: none"> <li>Student is required to answer 1 of 1 SAQ, <b>each</b> of 5 marks, on <b>each CP</b></li> <li>Student is required to answer 1 of 2 LAQs, <b>each</b> of 15 marks, on <b>each CP</b></li> <li><b>Maximum 5 Attempts only</b></li> <li><b>Marks:</b> 20 Marks for <b>each CP</b></li> <li><b>Duration:</b> 45 minutes for <b>each CP</b></li> </ol>
2	Studio with Term-Work (STW)	<ol style="list-style-type: none"> <li>Student is required to submit "Activity Report" for <b>each CP</b> in the prescribed format.</li> <li><b>Single Attempt only</b></li> <li><b>Marks:</b> 5 Marks for <b>each CP</b></li> <li><b>Duration:</b> Specified 1 Month</li> <li><b>CAT: Continuous Assessment Time is 1 hr for each C.P.</b></li> </ol>	<ol style="list-style-type: none"> <li>External and internal examiners shall assess each student based on: <ol style="list-style-type: none"> <li>Term-Work submission by the student</li> <li>Continuous Assessment submission by the student</li> </ol> </li> <li><b>Maximum 5 Attempts only</b></li> <li><b>Marks:</b> 20 Marks for <b>each CP</b></li> <li><b>Duration:</b> 240 minutes</li> </ol>
3	Studio with Viva (SV)	<ol style="list-style-type: none"> <li>Student is required to submit "Activity Report" for <b>each CP</b> in the prescribed format.</li> <li><b>Single Attempt only</b></li> <li><b>Marks:</b> 5 Marks for <b>each CP</b></li> <li><b>Duration:</b> Specified 1 Month</li> <li><b>CAT: Continuous Assessment Time is 1 hr for each C.P.</b></li> </ol>	<ol style="list-style-type: none"> <li><b>External</b> and internal examiners shall assess each student based on: <ol style="list-style-type: none"> <li>Term-Work submission by the student</li> <li>Continuous Assessment submission by the student</li> <li>Viva on studio Activities</li> </ol> </li> <li><b>Maximum 5 Attempts only</b></li> <li><b>Marks:</b> 20 Marks for <b>each CP</b></li> <li><b>Duration:</b> 240 minutes</li> </ol>

Actual CA and EE marks shall be used in computation of "Total Marks (TM)". "Grace Factor" and "Total Marks (TM)" shall be used in computation of Percentile marks. Only percentile marks shall be reported for each course in the mark-statement. Only best of the past performance shall be reported.

- Evaluation Pattern of 'Studio Term-Work' Type Courses of 4 CP**

SN	Description	Internal Examiner	External Examiner	Total Marks
<b>Duration of End Exam: 240 minutes (4 hrs)</b>		<b>Batch size: 20 students</b>		
a	Assessment of Assignments, drawings, Journal, Reports, etc.	30 Marks	50 Marks	80 Marks
<b>Total</b>		<b>30 Marks</b>	<b>50 marks</b>	<b>80 Marks</b>

- Evaluation Pattern of 'Studio Viva' Type Courses of 8 CP**

SN	Description	Internal Examiner	External Examiner	Total Marks
----	-------------	-------------------	-------------------	-------------

		<b>Duration of End Exam: 240 minutes (4 hrs)</b>		<b>Batch size: 20 students</b>	
a	Presentation of Assignments, drawings, Journal, Reports, etc. or Design portfolio, Case Study(ies), Reports, etc.	20 Marks	60 Marks	80 Marks	
b	Viva-Voice	40 Marks	40 Marks	80 Marks	
<b>Total</b>		<b>60 Marks</b>	<b>100 marks</b>	<b>160 Marks</b>	

• **Evaluation Pattern of 'Studio Viva' Type Courses of 16 CP**

SN	Description	Internal Examiner	External Examiner	Total Marks	
		<b>Duration of End Exam: 240 minutes (4 hrs)</b>		<b>Batch size: 15 students</b>	
a	Presentation of Assignments, drawings, Journal, Reports, etc. or Design portfolio, Case Study(ies), Reports, etc.	40 Marks	120 Marks	160Marks	
b	Viva-Voice	80 Marks	80 Marks	160Marks	
<b>Total</b>		<b>120 Marks</b>	<b>200 marks</b>	<b>320 Marks</b>	

# SEMESTER 01

## A34011: MANAGEMENT THEORIES AND BUSINESS ORGANIZATIONS

### PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

### COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
01	A34011	Management theories and Business organizations	2	20	2	60	10	40	50	TH

### PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
For successful completion of this course, student should have successfully completed: <ul style="list-style-type: none"><li>• Passed the B.Arch.</li><li>• <b>OR</b> its equivalent examination.</li></ul>	After successful completion of this course, student should be able to be: Equipped with concepts and principles of management in building construction and such other aspects of Project Management. It will develop advanced skills in planning, organizing, controlling and decision making for building projects..

### UNITS

UN	Name of the Unit	CSs	Questions
1-1	Introduction to Management: need, importance & purpose.	<b>CP Block 01</b>  <b>CSs 01-10</b>	Students have to answer '1 of 1' SAQ in CA <b>and</b> '1 of 1' SAQ & '1 of 2' LAQs in end exam on these units.
1-2	Construction Management basics		

2-1	Management Planning: Importance of Planning,. Project Manager, EntrepreneurCommunication Process, effective control.	<b>CP Block 02</b>	Students have to answer '1 of 1' SAQ & '1 of 2' LAQs in end exam on these units.
2-2	Organizing: structure, Characteristics, Features, their merits and limitations, behavior, decision making.	<b>CSs 11-20</b>	

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1-1	Introduction to Management: What is Management? Its need, importance & purpose.	<b>CP Block 01</b>
1-2	Construction Management basics: Nature of Construction Industry, Role of Architect and Engineer, Special Characteristics of construction activity, their influence on Construction Management, Development of Construction Management, Scope of Construction Management Project Management, Contracts Management Functions of Construction Management.	
2-1	Management Planning: What is planning? Importance of Planning. Project Manager: Managing projects vis-à-vis managing routine activities, Qualities of Project Manager, Selection of Project Manager, Training for a Project Manager. Leading: Leadership characteristics, Entrepreneur, leader and manager distinguished, Motivation, Managing conflicts, Leadership traits and styles, Different approaches to leadership. Communication Process: Types of Communication, Communication model, Feed Back, Effective Communication, and Listening skills. Controlling: Controlling as a Management Function, Direct and Indirect Control, Elements of Control, Prerequisites for effective control.	<b>CP Block 02</b>
2-2	Organizing: Organizing as a management process, Principles of Organization, different structures of organizations such as line, Line & staff, Functional, Matrix or Project Organization: Characteristics, Features, their merits and limitations, Ownerships of organization: Sole proprietorship, partnership, Private Ltd., Public Ltd., Introduction to organizational behavior, Formal and informal organizations, Organizational climate, decision making, Group decision making.	

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
_____ -TB1			
<b>Reference-Books</b>			
A34011-RB1	Management By Koontz, O' Donnel and Weibrich, McGraw Hill		
A34011-RB2	Management in Construction Industry; Dharwadkar P.P.,		Oxford & IBH

A34011-RB3	The Practice of Management, By Drucker P.F, , 1970	1970	Allied Publishers, New Delhi
A34011-RB4	The Principles of Business management By S.A. Sherlekar;		Himalaya Publications
<b>CD / DVD</b>			
-CD1			
<b>Web Links</b>			
-WL1			

# A34012: FINANCIAL AND ACCOUNT MANAGEMENT

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
01	A34012	Financial and Accounts Management	2	20	2	60	10	40	50	TH

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be able to:</p> <p>Able to understand various aspects of management accounting in construction business and to provide knowledge about the co-ordination of management accounting information for corporate financial decision making.</p>

## UNITS

UN	Name of the Unit	CSs	Questions
1-1	Introduction to Management accounting, control, status, relationship, Break-Even Analysis.	<b>CP Block 01</b>	Students have to answer '1 of 1' SAQ in CA <b>and</b> '1 of 1' SAQ & '1 of 2' LAQs in end exam on these units.
1-2	Accounting Mechanism & practices in India, financial statements, Accounting & depreciation accounting.	<b>CSs 01-10</b>	
2-1	Accounting types, Understanding of financial statement, financial position.	<b>CP Block 02</b>	Students have to answer '1 of 1' SAQ & '1 of 2' LAQs in end exam on these units.
2-2	Statutory requirements for accounting and auditing. Corporate reporting: Corporate reporting practices in India.	<b>CSs 11-20</b>	

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1-1	Introduction: Introduction to Management accounting, concept of control, status, role	<b>CP</b>

1-2	and scope of the management accounting, relationship between management accounting and top-level management, Break-Even Analysis. Accounting Mechanism: Accounting Mechanism & accounting practices in India. Preparation of financial statements, Accounting policies with special reference to revenue recognition, matching expenses and revenue & depreciation accounting.	<b>Book 01</b>
2-1	Accounting types: Inflation accounting, creative accounting, social accounting and social audit. Financial statement and their analysis: Understanding of financial statement and their analysis, like Balance Sheet, Profit & Loss Account, ratio analysis, fund flow analysis, statement of changes in financial position.	<b>CP Book 02</b>
2-2	Statutory requirements: Statutory requirements for accounting and auditing. Corporate reporting: Corporate reporting practices in India.	

### LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
_____ -TB1			
<b>Reference-Books</b>			
A34012-RB1	Accounting for management; By Bhattacharya, S.K. and John Dearden,		Vikar, New Delhi.
A34012-RB2	Management Accounting & Financial Analysis, By Khan & Jain		Tata McGraw Hill
A34012-RB3	Techniques of management accounting By Young David W.		Tata McGraw Hill
<b>CD / DVD</b>			
_____ -CD1			
<b>Web Links</b>			
_____ -WL1			

# A34013: CONSTRUCTION MATERIALS AND MACHINERY

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
01	A34013	Construction materials and machinery	4	56	4	60	20	80	100	STW

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be able to:</p> <p>understand the emerging construction materials &amp; technologies &amp; their applications in construction activities to manage the projects efficiently &amp; effectively..</p>

## UNITS

UN	Name of the Unit	CSs	Questions
Four Case studies with analysis The projects to be include:			
1	Study of advance building materials, types of finishes & treatments, Construction chemicals, specially manufactured items, specialized equipment, Market survey and collection of information about the materials.	<b>CP Block 01</b> <b>CSs 01-15</b>	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
2	Special types of concrete construction, Reinforcing steel.	<b>CP Block 02</b> <b>CSs 15-30</b>	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
3	Subsurface soil explorations & Soil improvement.	<b>CP Block 03</b> <b>CSs 31-45</b>	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.



4	Equipment Management, Mechanization construction equipment & usefulness.	<b>CP Block 04</b> <b>CSs 46-60</b>	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
---	--	--	---

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1	Study of advance building materials like Special alloys of steel & other metals, glass, polymer, fabric, Various types of finishes & treatments, Construction chemicals, specially manufactured items from manufacturers catalogues, etc. and specialized equipment required for erection used in erection of various large span structures, like Geodesic domes, hyperbolic paraboloids, and free form shapes etc. Market survey and collection of information about the materials.	<b>CP Block 01</b>
2	Special types of concrete construction: Formwork: types, design criteria, patented systems Fabrication of pre cast and pre stressed components, Pumped and sprayed concrete and mortar, ready mixed concrete, pre placed aggregate concrete, polymer modified concrete, high performance concrete, roller compacted concrete, concrete masonry, underwater concreting, Reinforcing steel: types, bending, placing, splicing and spacing, tendons.	<b>CP Block 02</b>
3	Subsurface soil explorations & Soil improvement: Hazardous site and foundation conditions. Solution prone formations, expansive soils, landslide hazards, liquefaction of soils Soil improvement, Mechanical, thermal, chemical etc.	<b>CP Block 03</b>
4	Equipment Management: Mechanization on construction projects, Sizing, and matching of equipment, Selection and Planning for equipment, Estimating out put of an equipment, Owning, hiring, leasing of construction equipment, Equipment maintenance, Cost of use of equipment, Life of equipment, Physical, Economic, & usefulness, Depreciation, Replacement of equipment	<b>CP Block 04</b>

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
	-TB1		
<b>Reference-Books</b>			
A34013-RB1	Standard Handbook for Civil Engineers By Merritt F S (Ed)		McGraw Hill
A34013-RB2	Concrete Construction Handbook By Waddell		McGraw Hill
A34013-RB3	Construction Equipment, its Planning & Application By Varma Mahesh		Metropolitan Book Co
A34013-RB4	Construction planning, Equipment & Methods By Peurifoy.		Tata McGraw Hill
<b>CD / DVD</b>			
	-CD1		
<b>Web Links</b>			

-WL1			
------	--	--	--

## A34014: COMPUTER APPLICATIONS IN CONSTRUCTION MANAGEMENT

### PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ymcou.com/">http://www.ymcou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

### COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
01	A34014	Computer applications in construction management	4	56	4	60	20	80	100	STW

### PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be:</p> <p>Introduced to the basic elements, principles and techniques of urban design so as to develop an understanding of the broader aspects and issues that bear upon the conception and design of 3-d built environment and public spaces at urban level.</p>

### UNITS

UN	Name of the Unit	CSs	Questions
1 & 2	Introduction to BIM Software, material inventory, work out problems, and simulate and analyze potential impacts.	<b>CP Block 01 to 02 CSs 01-30</b>	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
3 & 4	Introduction to Project Software for development and tracking of it, Data Management, Submittals-Product Data, Punch list etc.; Financial Management, cost reports and import 3D CAD/BIM model, project.	<b>CP Block 03 to 04 CSs 31-60</b>	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1 & 2	Introduction to BIM Software application to enhance efficiency during and post construction phases, and facility management. Applications like determination of quantities of items and material inventory, to build a building virtually prior to building it physically, work out problems, and simulate and analyze potential impacts, anticipation and ease of project delivery, the overall safety of the project, etc	CP Block 01 to 02
3 & 4	Introduction to Software like Primavera-P6/MS Project/Sure trak-For schedule development and tracking of it; Prolog-Data Management-RFI's [Request for Information], Submittals-Product Data, Punch list etc.; JDE [JD Edwards]-Financial Management- For use of tracking and developing the cost reports and issuing the change orders, etc.; Navis works-In this software 3D Auto CAD/Revit model can be imported with a project schedule to review the progress of the Project	CP Block 03 to 04

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
_____ -TB1			
<b>Reference-Books</b>			
A34014-RB1			
A34014-RB2			
A34014-RB3			
A34014-RB4			
A34014-RB4			
<b>CD / DVD</b>			
_____ -CD1			
<b>Web Links</b>			
_____ -WL1			

# A34015: ELECTIVE 1 DISASTER MANAGEMENT

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
01	A34015	Elective 1: Disaster management	4	56	4	60	20	80	100	STW

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be:</p> <p>Understand responsibilities of organizations and personnel towards safety, prevention, response and relief in events of disaster.</p>

## UNITS

UN	Name of the Unit	CSs	Questions
1	Causes of disaster risks and preparedness. Principles of Emergency Management, Safety precautions and standards in work environment	CP Block 01 CSs 01-15	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
2	Response teams and training. Emergency and casualty prediction. relief operations, Organizational response. Recovery, rescue, Emergency management & after a disaster.	CP Block 02 CSs 15-30	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
3	Legalities and responsibility of organization, Insurance, financial aid and compensation.	CP Block 03 CSs 31-45	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
4	Case study of an accident on site and appraisal of the case in view of the above mentioned issues.	CP Block 04 CSs 46-60	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1	Causes of disaster on Construction sites: Natural and human made hazards. Foresee possible risks and preparedness. Principals of Emergency Management: Comprehensive, progressive, risk driven, integrated, collaborative, coordinated, flexible, professional. Safety precautions and standards in work environment	CP Block 01
2	Response teams and training. Emergency and casualty prediction. Disaster relief operations. Organizational response. Recovery rescue. Medical aid and First aid response. Organizations for emergency management. Emergency management information. Crowd control and precautions after a disaster.	CP Block 02
3	Legalities and responsibility of organization with reference to safety on work sites. Insurance, financial aid and compensation.	CP Block 03
4	Case study of an accident on site and appraisal of the case in view of the above mentioned issues.	CP Block 04

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
____-TB1			
<b>Reference-Books</b>			
A34015-RB1			
A34015-RB2			
A34015-RB3			
A34015-RB4			
<b>CD / DVD</b>			
____-CD1			
<b>Web Links</b>			
____-WL1			

# A32015: ELECTIVE 2 WASTE WATER MANAGEMENT

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
01	A32015	Elective 2: Waste water Management	4	56	4	60	20	80	100	STW

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be:</p> <p>Understand the impact of Waste water and pollution and evolve ways of overcoming it through design interventions.</p>

## UNITS

UN	Name of the Unit	CSs	Questions
1	Waste water characterization	CP Block 01 CSs 01-15	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
2	Processes	CP Block 02 CSs 15-30	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
3	Treatment types	CP Block 03 CSs 31-45	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
4	Non-conventional treatment systems	CP Block 04 CSs 46-60	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1	Waste water characterization: Types of waste water, generation points, characteristics & Microbiology	CP Block 01
2	Processes: Unit processes – equalization, sedimentation, coagulation, filtration, organic removal, disinfection etc.	CP Block 02
3	Treatment types: Treatment type including aerobic, anaerobic, centralized, decentralized & facultative – primary, secondary & tertiary	CP Block 03
4	Non-conventional treatment systems: Non-conventional treatment system including Dewats, Lomwats, shallows, aquifer, oxidation pond, reed bed, duckweed pond, water hyacinth & living machine	CP Block 04

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
____-TB1			
<b>Reference-Books</b>			
A32015-RB1	DEWATS: Decentralized waste water treatment in developing countries by Ludwig Sasse,	1998	BORDA
A32015-RB2	Small waste water treatment plants: A challenge to water engineers,	1997	Water Science and Technology,
A32015-RB3	Feasibility of Anaerobic Sewage treatment in Sanitation Strategies in Developing Countries by Alaerts, Venestra, Bentvelsen, M. Van Kujit	1990	Et al, Delft
<b>CD / DVD</b>			
____-CD1			
<b>Web Links</b>			
____-WL1			

# A34016: DESIGN STUDIO 1

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
01	A34016	Design Studio 1	8	112	8	120	40	160	200	SV

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be able to:</p> <p>Acquire a comprehensive base of knowledge required for the practice of architecture.</p> <p>Develop awareness in physical context about implications of limited sources in design decision making.</p>

## UNITS

UN	Name of the Unit	CSs	Questions
1 to 8	<p>Mass Housing Project of a large magnitude in one of the categories or a similar development typology below:</p> <ol style="list-style-type: none"> <li>Higher income group or combinations of income groups in Urban areas.</li> <li>Slum Improvement schemes by Government or private organizations</li> <li>Housing project for Old Age people</li> <li>Rehabilitation / transit accommodation /camps for people affected by natural disasters like earthquake, floods, refugees, or other disasters.</li> </ol> <p>The final project work will include Architectural drawings &amp; relevant details, case study/ies,</p>	<p><b>CP</b> <b>Block</b> <b>01 to</b> <b>08</b> <b>CSs</b> <b>01-120</b></p>	<p>Students are expected to complete sufficient number of projects related to this course, with regular critical remarks and assessment from the counselor and peer students, during the semester. External and internal experts will jointly evaluate these projects for 100 marks with viva after presentation by the student for about 5-7 minutes</p>



## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1 to 8	<p>Mass Housing Project of a large magnitude in one of the categories or a similar development typology below:</p> <ol style="list-style-type: none"> <li>1. Higher income group or combinations of income groups in Urban areas.</li> <li>2. Slum Improvement schemes by Government or private organizations</li> <li>3. Housing project for Old Age people</li> <li>4. Rehabilitation / transit accommodation /camps for people affected by natural disasters like earthquake, floods, refugees, or other disasters.</li> </ol> <p>An in-depth research and analysis of activities below to evaluate the progress of work:</p> <ol style="list-style-type: none"> <li>a. Need / Demand of the project considering socio-economic conditions</li> <li>b. Geography, local conditions and Climatic conditions</li> <li>c. Special design considerations for the user</li> <li>d. Development control legislations</li> <li>e. Amenities for the residential development</li> <li>f. Case study/ies to substantiate the design philosophy</li> <li>g. Impact of the development on adjacent neighborhood</li> <li>h. Evolving Design Brief for the Project</li> <li>i. Deriving typical modules for dwelling types</li> <li>j. Architectural Design project</li> </ol> <p>The final project work will include Architectural drawings &amp; relevant details, case study/ies,</p>	CP Block 01 to 08

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
-TB1			
<b>Reference-Books</b>			
A34016-RB1	Planning and Architecture Edited by Dennis Sharp Editor		
A34016-RB2	Planning feasible learning places By Leggett S Bru Baker C. W. & Cohodes A.		
A34016-RB3	Methods in Architecture By. Town Health		
<b>CD / DVD</b>			
-CD1			
<b>Web Links</b>			
-WL1			

# SEMESTER 02

## A34021: PROJECT ASSESSMENT & MANAGEMENT

### PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

### COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
02	A34021	Project Assessment & Management	2	20	2	60	10	40	50	TH

### PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
For successful completion of this course, student should have successfully completed: <ul style="list-style-type: none"><li>Passed the B.Arch.</li><li><b>OR</b> its equivalent examination.</li></ul>	After successful completion of this course, student should be able to: Develop an awareness Significance and Architect's role in Project Management, & Process of Project Management & organization

### UNITS

UN	Name of the Unit	CSs	Questions
1-1	Significance and Architect's role in Project Management.	<b>CP</b>	Students have to answer '1 of 1' SAQ in CA <b>and</b> '1 of 1' SAQ & '1 of 2' LAQs in end exam on these units.
1-2	Compilation of relevant data	<b>Block 01</b> <b>CSs</b> <b>01-10</b>	
2-1	Process of Project Management & organization	<b>CP</b>	Students have to answer '1 of 1' SAQ & '1 of 2' LAQs in end exam on these units.
2-2	Site, Material, Human resources and Equipment	<b>Block 02</b> <b>CSs</b> <b>11-20</b>	
2-3	Economics & financial accounting systems		

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1-1	Significance and Architect's role in Project Management. Effects on Quality control, Timely completion and Project costs.	<b>CP Block 01</b>
1-2	Compilation of relevant data about: The objective of project, Drawings & Details, Materials & Specifications, Building Services involved, and actual & estimated costs. Any specific constraints about Site conditions & Topography, Completion Time, availability of materials & skilled/unskilled workers, use of specialised technology & construction equipment, quality control measures & checkpoints, etc	
2-1	Process of Project Management & organization, Project Team, Quality control and Architect's supervisory / monitoring role, PERT / CPM and Network Techniques, Time cost analysis and Value engineering.	<b>CP Block 02</b>
2-2	Site, Material, Human resources and Equipment Management, Cost control and cash flow. Material procurement, inventory & flow. Requirement & hierarchy of Human resources. Logistics & co-ordination of activities. Evolving of system for Quality controls & check points.	
2-3	Economics & financial accounting systems, legal aspects & accountability and establishing system for appraisal during construction.	

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
-TB1			
<b>Reference-Books</b>			
A34021-RB1	Projects: Appraisal, Analysis, Financing, Implementation & Review; By Prasanna Chandra		TMH publication
A34021-RB2	Project Management By Kerzner H,		CBS Publishers
A34021-RB3	Project Cost Control in construction; By Pilcher R		Collins
A34021-RB4	Quality Assurance in Construction Dunkan, Thorpe & Summer		Gower
<b>CD / DVD</b>			
-CD1			
<b>Web Links</b>			
-WL1			

# A34022: FINANCE & ECONOMICS IN BUILDING INDUSTRY

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
02	A34022	Finance & Economics in Building Industry	2	20	2	60	10	40	50	TH

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be able to:</p> <p>To understand Factors influencing Location of development, issues like Business Finance, Sources of Finance, Capital Market, Financial Services etc.</p>

## UNITS

UN	Name of the Unit	CSs	Questions
1-1	Introduction to Building Economics	<b>CP Block 01</b>	Students have to answer '1 of 1' SAQ in CA and '1 of 1' SAQ & '1 of 2' LAQs in end exam on these units.
1-2	Factors influencing Location of development		
1-3	Large, medium and small scale development		
1-4	Housing Policy of Indian Government		
2-1	Business Finance	<b>CP Block 02</b>	Students have to answer '1 of 1' SAQ & '1 of 2' LAQs in end exam on these units.
2-2	Sources of Finance		
2-3	Capital Market		
2-4	Financial Services		

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1-1	Introduction to Building Economics: Meaning, Scope, Need and Significance of Study	<b>CP</b>

	of building Economics. Inter-Dependence of Agriculture, Industrial and Economic Development.	<b>Book 01</b>
1-2	Factors influencing Location of development. Factors affecting productivity and efficiency like Social & Cultural, Industrialisation, Urbanisation.	
1-3	Large, medium and small scale development in Private Sector, Public Sector.	
1-4	Housing Policy of Indian Government	
2-1	Business Finance: Estimating the short, Medium and long term financial requirements. Financial Plan- Characteristics & Limitations.	<b>CP Book 02</b>
2-2	Sources of Finance: Private Sector, Public Sector, Co-operative Sector, Govt. Participation, and Foreign Sources.	
2-3	Capital Market: Primary and Secondary Capital Market Players. Functioning & Critical Evaluation.	
2-4	Financial Services relating to raising of Capital: Loan policies of Banks, Private, Public, & Government financial bodies. Project Appraisal	

### LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
_____ -TB1			
<b>Reference-Books</b>			
A34012-RB1	Financial Management –Theory and Practice By Prasanna Chandra		Tata McGraw Hill
A34012-RB2	Financial Management By I M Pandey		Vikas PublishingHouse
A34012-RB3	Managerial Finance By J Fred Weston & Thomas E Copeland		The Dryden Press, New York.
A34012-RB4	Fundamentals of Financial Management By Van Horne J		C Prentice Hall, New Delhi
A34012-RB5	Construction Management: Planning & Finance By Cormican D		Construction Press, London
<b>CD / DVD</b>			
_____ -CD1			
<b>Web Links</b>			
_____ -WL1			

# A34023: ADVANCED BUILDING CONSTRUCTION TECHNIQUES

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
02	A34023	Advanced Building Construction Techniques	4	56	4	60	20	80	100	STW

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be able to:</p> <p>To develop awareness and understanding construction of large span structures, High rise buildings, Pre-fabrication in building construction, Modular co-ordination, and advance building materials</p>

## UNITS

UN	Name of the Unit	CSs	Questions
Four Case studies with analysis The projects to be include:			
1	Conceptual Understanding of various large span structures	<b>CP Block 01</b> <b>CSs 01-15</b>	Students have to submit 'Report of Activities' in CA <b>and</b> 'Term Work' for end exam on these units.
2	Study of advance building materials	<b>CP Block 02</b> <b>CSs 15-30</b>	Students have to submit 'Report of Activities' in CA <b>and</b> 'Term Work' for end exam on these units.
3	Conceptual Understanding of High rise buildings	<b>CP Block 03</b> <b>CSs 31-45</b>	Students have to submit 'Report of Activities' in CA <b>and</b> 'Term Work' for end exam on these units.

4	Conceptual Understanding of Pre-fabrication in building construction. Concept of Modular co-ordination	<b>CP Block 04</b> <b>CSs 46-60</b>	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
---	--	--	---

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1	Conceptual Understanding of various large span structures, like Geodesic domes, hyperbolic paraboloids, and free form shapes etc. used for Airports, Stadia, Industrial buildings, public spaces etc. Construction details understanding, Service systems, Structural Systems, Sequence of erection and facilitating maintenance of such structures. Identify specialized equipment required for erection of such structures. Case study/ies of such structures and reporting.	<b>CP Block 01</b>
2	Study of advance building materials like Special alloys of steel & other metals, glass, polymer, fabric, Various types of finishes & treatments, Construction chemicals, specially manufactured items from manufacturers catalogues, etc. and specialized equipment required for erection used in erection of structures mentioned in Block 1 above. Market survey and collection of information about the materials.	<b>CP Block 02</b>
3	Conceptual Understanding of High rise buildings in normal and adverse conditions considering topography of the site, water-logging, marine structures, et. Construction details understanding, Service systems, Structural Systems, Sequence of erection and facilitating maintenance of such structures. Identify specialized equipment required for erection of such structures. Case study/ies of such structures and reporting.	<b>CP Block 03</b>
4	Conceptual Understanding of Pre-fabrication in building construction. Concept of Modular co-ordination. Construction details understanding, Service systems, Structural Systems, Sequence of erection and facilitating maintenance of such structures. Essential process of manufacturing, handling of pre-fabricated components. Identify specialized equipment required for erection of such structures. Case study/ies of such structures and reporting.	<b>CP Block 04</b>

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
-TB1			
<b>Reference-Books</b>			
A34023-RB1	Architects working details Vol. 1 to 16		
A34023-RB2	Time – saver Standards		
A34023-RB3	Structure in Architecture by Salvadori and Heller		
A34023-RB4	Design of Steel – Structures by Vazirani – Rathvani		
A34023-RB5	Elements of structure by Morgan		
A34023-RB6	Steel space frames by Makovsky		
<b>CD / DVD</b>			

-CD1			
<b>Web Links</b>			
-WL1			



# A34024: ADVANCED BUILDING SERVICES & DESIGN WITH CLIMATE

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ymou.com/">http://www.ymou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
02	A34024	Advanced Building Services & Design With Climate	4	56	4	60	20	80	100	STW

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be:</p> <p>To develop awareness and understanding of Advanced Building Services employed in various complex buildings and address environmental issues related to these services.</p>

## UNITS

UN	Name of the Unit	CSs	Questions
1	Water supply & Plumbing systems in high rise building complexes and complex structures:	CP Block 01 CSs 01-15	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
2	Sanitation and Waste disposal systems in high rise building complexes and complex structures:	CP Block 02 CSs 15-30	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
3-1	Mechanical & Communication systems	CP Block 03 CSs 31-45	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
3-2	Electrical and telecommunication systems		
3-3	Lighting, Heating, Ventilation & Air conditioning systems		

4-1	Acoustics Design parameters for determining the acoustical behavior of spaces	<b>CP Block 04 CSs 46-60</b>	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
4-2	Fire protection and prevention		

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1	Water supply & Plumbing systems in high rise building complexes and complex structures: Procurement, demand and distribution of water in large complexes. Quality of water for consideration for different uses. Systems and equipment used in Treatment of water for distribution, recycling and reuse and specialized equipment used for this purpose. Identify special needs for a building typology-development. Case study/ies of such structures and reporting.	<b>CP Block 01</b>
2	Sanitation and Waste disposal systems in high rise building complexes and complex structures: Collection and disposal systems used in high rise buildings and complex structures. Effluent treatment plants and their efficiency, chemical properties of the treated effluent considering the source and end use. Concept of recycling and reuse of treated effluent. Rain water harvesting and similar methods of conserving water resources. Disposal of treated effluent into natural sources of water. Storm/rain/surface water estimation, collection systems and disposal. Case study/ies of such structures and reporting	<b>CP Block 02</b>
3-1	Mechanical & Communication systems (elevators, escalators, conveyors, etc.). Security systems etc. in high rise building complexes, public buildings, Parking lots and complex structures like Hospitals, public transport terminals etc. Design parameters for determining the loads & requirement, Operation and maintenance of these Services. Case study/ies of such structures and reporting.	<b>CP Block 03</b>
3-2	Electrical and telecommunication systems in high rise building complexes public buildings, and complex structures like Hospitals, public transport terminals, IT complexes etc. Design parameters for determining the loads & requirement, Operation and maintenance of these Services. Case study/ies of such structures and reporting.	
3-3	Lighting, Heating, Ventilation & Air conditioning systems in high rise building complexes, public buildings, Parking lots and complex structures like Hospitals, public transport terminals etc. Design parameters for determining the loads & requirement, Operation and maintenance of these Services. Passive & active ways of control of heat, light, humidity etc. for comfort conditions. Introduction to simulation software to determine comfort conditions in various spaces. Case study/ies of such structures and reporting. Intelligent buildings	
4-1	A brief overview of Acoustics studied in the B Arch programme. Design parameters for determining the acoustical behavior of spaces. Passive & active ways of control of acoustical behavior of spaces for good hearing conditions. Introduction to simulation software to determine acoustical behavior of spaces. Study of advance acoustical materials, types of finishes & treatments, specially manufactured items from manufacturer's catalogues, etc. Case study/ies of such structures and reporting.	<b>CP Block 04</b>

4-2	Code provisions from NBC for Fire protection and prevention in high rise building complexes, public buildings, Parking lots and complex structures like Hospitals, public transport terminals educational buildings, building types categorised under etc. Design parameters for determining the loads & requirement. Study of advance materials, types of finishes & treatments, specially manufactured items from manufacturer's catalogues, etc for prevention of fire and fire-fighting	
-----	---	--

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
-TB1			
<b>Reference-Books</b>			
A34024-RB1	Environment and services – Peter Bucberry		
A34024-RB2	ABC's of Air Conditioning – Ernest Tricomi		
A34024-RB3	Heating and Air Conditioning of Buildings		
A34024-RB4	Environmental Science – Smith Philips and Sweeney		
A34024-RB5	Mechanical & Electrical Equipment in Buildings		
A34024-RB6	Sanitation, Drainage, & Water Supply – Mitchell		
A34024-RB7	Drainage & Sanitation – E. H. Blake		
A34024-RB8	Heating & Hot Water Supply – Hall.		
A34024-RB9	Architectural Acoustics By M. David Egan	January 2007	ISBN: 978-1-932159-78-3
A34024- RB10	Architectural Acoustics By Marshall Long	2006	Elsevier Academic Press
<b>CD / DVD</b>			
-CD1			
<b>Web Links</b>			
-WL1			

## A34025: ELECTIVE 1 VERNACULAR ARCHITECTURE

### PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

### COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
02	A34025	Elective 1: Vernacular Architecture	4	56	4	60	20	80	100	STW

### PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be:</p> <ul style="list-style-type: none"> <li>Identify and conserve the untapped values and principles in the evolution of new theories for architectural creations</li> <li>Highlight needs and various ways of vernacular building research, analysis, presentation of finding and its application to contemporary buildings</li> </ul>

### UNITS

UN	Name of the Unit	CSs	Questions
1	Introduction to Vernacular architecture in history of world architecture (outside Indian subcontinent)	CP Block 01 CSs 01-15	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
2	Case study/ies of works of architects in contemporary world architecture (outside Indian subcontinent)	CP Block 02 CSs 15-30	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
3	Introduction to Vernacular in history of architecture in Indian subcontinent	CP Block 03 CSs 31-45	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.

4	Case study/ies of works of architects in contemporary Indian architecture	<b>CP Block 04</b> <b>CSs 46-60</b>	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
---	---	--	---

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1	Introduction to Vernacular architecture it's nature, purpose and scope. Analytical review classification, salient features and important contributions in evolving workable solutions. Study of examples of Vernacular architecture in history of world architecture (outside Indian subcontinent) to understand evolution of building forms based on functions, building materials and construction techniques, art & crafts, the local conditions, traditions, climate & geography, religion & culture in the period when they were built	<b>CP Block 01</b>
2	Case study/ies of works of architects in contemporary world architecture (outside Indian subcontinent) whose works are influenced by the Vernacular Architecture of the region.	<b>CP Block 02</b>
3	Introduction to Vernacular architecture it's nature, purpose and scope. Analytical review classification, salient features and important contributions in evolving workable solutions. Study of examples of Vernacular architecture in history of architecture in Indian subcontinent; to understand evolution of building forms based on functions, building materials and construction techniques, art & crafts, the local conditions, traditions, climate & geography, religion & culture in the period when they were built	<b>CP Block 03</b>
4	Case study/ies of works of architects in contemporary Indian architecture; whose works are influenced by the Vernacular Architecture of the region	<b>CP Block 04</b>

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
-TB1			
<b>Reference-Books</b>			
A34025-RB1	Vernacular Architecture: An Illustrated Handbook By R.W. Brunskill	4th ed 2000	Faber and Faber ISBN-10: 0571195032
A34025-RB2	Architecture Without Architects: A Short Introduction to Non-pedigreed Architecture by Bernard Rudofsky		
A34025-RB3	Bhatia, Gautam, Laurie Baker, Life, Work, Writings, New Delhi, India,	1994	Penguin Books, ISBN 0-14-015460-4
A34025-RB4	Voluntary Agencies and Housing: A Report on Some Voluntary Agencies Working in the Field of Housing in India, by Madhao Achwal. Published	1979	UNICEF

A34025-RB5	Handmade Houses and Other Buildings The World of Vernacular Architecture By John May	2010	Thames & Hudson
A34025-RB6	Hassan Fathy- Architectural Monographs, By James Steele	1988	St. Martin's Press
<b>CD / DVD</b>			
_____ -CD1			
<b>Web Links</b>			
_____ -WL1			

## A32025: ELECTIVE 2 FUTURISTIC ARCHITECTURE

### PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

### COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
02	A32025	Elective 2: Futuristic Architecture	4	56	4	60	20	80	100	STW

### PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be:</p> <p>Introduced to the artistic and social movement form of architecture characterized by anti-historicism, including speed, technology, youth and violence, and objects such as the car, the airplane and the industrial city. Futurism practiced in every medium of art, including painting, sculpture, ceramics, graphic design, industrial design, interior design, theatre, film, fashion, textiles, literature, music, architecture and even gastronomy. discipline thus seeking a systematic and pattern-based understanding of past and present, and to determine the likelihood of future events and trends.</p>

### UNITS

UN	Name of the Unit	CSs	Questions
1	Introduction to study of futurology	CP Block 01 CSs 01-15	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
2	Brief review of design philosophy of past and present and the trends experienced	CP Block 02 CSs 15-30	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.

3	Futuristic building forms and structural systems	<b>CP Block 03</b> <b>CSs 31-45</b>	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
4	Futuristic building materials, construction techniques and technologies	<b>CP Block 04</b> <b>CSs 46-60</b>	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1	Introduction to study of futurology - study of postulating possible, probable, and preferable futures and the worldviews and myths that underlie them. Generally understand terms like Foresight, Probability & predictability, Methodology, Futures techniques, Shaping Alternative futures, Near and Long term predictions, Trend analysis, forecasting, etc.	<b>CP Block 01</b>
2	Brief review of design philosophy of past and present and try to project the trends experienced. Look into possible Futuristic needs in context with advancement in the field of information technology, web, internet, simulation techniques and changing culture of society affecting forms of architecture	<b>CP Block 02</b>
3	Futuristic building forms and structural systems catering to the future needs.	<b>CP Block 03</b>
4	Futuristic building materials, construction techniques and technologies.	<b>CP Block 04</b>

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
	-TB1		
<b>Reference-Books</b>			
A32025-RB1	Future Shock By Alvin Toffler	1970	Random House
A32025-RB2	2081: A Hopeful View of the Human Future Gerard K. O'Neill	1981	Simon & Schuster
A32025-RB3	Futurewise By Patrick Dixon	2007	HarperCollins, Profile Business
A32025-RB4	A Short History of the Future By W. Warren Wagar	1989	
A32025-RB5	Sustainagility By Patrick Dixon and Johan Gorecki	2010	Kogan Page
A32025-RB6	Nineteen Eighty-Four By George Orwell		
<b>CD / DVD</b>			



-CD1			
<b>Web Links</b>			
-WL1			

# A34026: DESIGN STUDIO 2

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
02	A34026	Design Studio 2	8	112	8	120	40	160	200	SV

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be able to:</p> <p>Acquire a comprehensive base of knowledge required for the practice of architecture.</p> <p>Develop awareness in physical context about implications of limited sources in design decision making.</p>

## UNITS

UN	Name of the Unit	CSs	Questions
1 to 8	Architectural Design Project of a large magnitude in one of or similar categories of building typology emphasizing on need of Advance construction techniques and Advance Building services like: Projects for High end hospitality industry, Super specialty hospitals, Airports & mass transportation terminals, Research laboratories, High end IT parks & establishments, High rise buildings, State Secretariat and assembly, etc.	<p><b>CP</b></p> <p><b>Block</b></p> <p><b>01 to 08</b></p> <p><b>CSs</b></p> <p><b>01-120</b></p>	<p>Students are expected to complete sufficient number of projects related to this course, with regular critical remarks and assessment from the counselor and peer students, during the semester. External and internal experts will jointly evaluate these projects for 100 marks with viva after presentation by the student for about 5-7 minutes</p>

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1 to 8	<p>An in-depth research and analysis of activities below to evaluate the progress of work:</p> <ol style="list-style-type: none"> <li>Geography, local conditions and Climatic conditions,</li> <li>Special design considerations for the user,</li> <li>Development control legislations and Disaster management systems and controls,</li> <li>Amenities for the project,</li> <li>Case study/ies to substantiate the design philosophy,</li> <li>Impact of the development on adjacent neighborhood</li> <li>Evolving Design Brief for the Project</li> </ol> <p>The final project work will include Architectural drawings &amp; relevant details, case study/ies, reports for the research/documentation for the project.</p>	CP Block 01 to 08

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
_____ -TB1			
<b>Reference-Books</b>			
A34016-RB1	Planning and Architecture Edited by Dennis Sharp Editor		
A34016-RB2	Planning feasible learning places By Leggett S Bru Baker C. W. & Cohodes A.		
A34016-RB3	Methods in Architecture By. Town Health		
<b>CD / DVD</b>			
_____ -CD1			
<b>Web Links</b>			
_____ -WL1			

# SEMESTER 03

## A34031: BUILDING BYELAWS & ARCH. PRACTICE

### PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ymou.com/">http://www.ymou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

### COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
03	A34031	Building Byelaws & Arch. Practice	2	20	2	60	10	40	50	TH

### PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
For successful completion of this course, student should have successfully completed: <ul style="list-style-type: none"><li>Passed the B.Arch.</li><li><b>OR</b> its equivalent examination.</li></ul>	After successful completion of this course, student should be able to: Develop an awareness Significance and Architect's role in profession. Acquaint with relevant Acts & Laws and general Management of Architectural Practice.

### UNITS

UN	Name of the Unit	CSs	Questions
1	An overview of the Town Planning Acts of Urban Development ministry of States & Central Government. DCRules, R P, DP, at State, District, Urban agglomeration, Local planning Authorities, CRZs, etc	<b>CP</b> <b>Block</b> <b>01</b> <b>CSs</b> <b>01-10</b>	Students have to answer '1 of 1' SAQ in CA and '1 of 1' SAQ & '1 of 2' LAQs in end exam on these units.
2	Architects office and office Management, Role & Duties of International Architectural practice	<b>CP</b> <b>Block</b> <b>02</b> <b>CSs</b> <b>11-20</b>	Students have to answer '1 of 1' SAQ & '1 of 2' LAQs in end exam on these units.

### DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1	An overview of the Town Planning Acts of Urban Development ministry of States & Central Government. The rules and regulations for Development Control and the	<b>CP</b> <b>Block</b>

	principles behind the framing of these. Regional Plan, Development Plans, at State, District, Urban agglomeration, Municipal Corporations & Councils, Improvement trusts & Regional Development Authorities, CRZs, etc. Procedures for formulations, Implementation and applying fro Approvals at various levels.	<b>01</b>
2	Architects office and office Management. Interaction with the consultants. Design Management Issues. Role & Duties of Architect as an Employer or Employee. International Architectural practice and role of Various Statutory / Regulatory bodies in licensing like RIBA, AIA, etc	<b>CP Book 02</b>

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
_____ -TB1			
<b>Reference-Books</b>			
A34031-RB1	COA Handbook of Professional Documents	2009	
A34031-RB2	Maharashtra Regional Town Planning Act	1966	
A34031-RB3	Land Revenue Code	1966	
A34031-RB4	Professional Practice By Roshan Namavati	2005	Lakhani Book Depot
A34031-RB5	Professional Practice By Madhav Deobhakta		
<b>CD / DVD</b>			
_____ -CD1			
<b>Web Links</b>			
_____ -WL1			

# A34032: ARCHITECTURAL LEGALITIES

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
03	A34032	Architectural legalities	2	20	2	60	10	40	50	TH

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be able to:</p> <p>Acquaint with relevant Acts &amp; Laws related to Architectural Practice in India and Internationally.</p>

## UNITS

UN	Name of the Unit	CSs	Questions
1-1	Architects Act 1972 in India and COA.	<b>CP</b>	Students have to answer '1 of 1' SAQ in CA and '1 of 1' SAQ & '1 of 2' LAQs in end exam on these units.
1-2	Regulations, Conditions and requirements of qualification, equivalence etc. for International practice	<b>Block 01</b> <b>CSs 01-10</b>	
2-1	An overview of various Acts relevant to the Architectural profession	<b>CP</b>	Students have to answer '1 of 1' SAQ & '1 of 2' LAQs in end exam on these units.
2-2	An overview of various Acts relevant to the Architectural profession.	<b>Block 02</b> <b>CSs 11-20</b>	

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1-1	<p>Architects Act 1972 in India – Scope of work, Professional conduct, Scale of fees, etc. Architect's Professional liabilities and responsibilities. Architectural Competitions. Registration and continuation of registration of COA.</p> <p>Regulations, Conditions and requirements of qualification, equivalence etc. for International practice in countries other than India like: USA, UK, Europe, Gulf</p>	<b>CP Block 01</b>

1-2	countries, Asian countries etc.	
2-1	An overview of various Acts relevant to the Architectural profession: Taxation laws like IT, Service Tax, etc	<b>CP Book 02</b>
2-2	An overview of various Acts relevant to the Architectural profession: like Indian Contract Act, Environment related laws, etc	

### LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
_____ -TB1			
<b>Reference-Books</b>			
A34031-RB1	COA Handbook of Professional Documents		
A34031-RB2	Income Tax Act		
A34031-RB3	Service Tax Act		
A34031-RB4	Environmental Laws		
A34031-RB5	Indian Contract Act		
<b>CD / DVD</b>			
_____ -CD1			
<b>Web Links</b>			
_____ -WL1			

# A34033: ARCHITECTURAL EVALUATION

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
03	A34033	Architectural Evaluation	4	56	4	60	20	80	100	STW

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be able to:</p> <p>To have acquired the ability to analyze and evaluate architectural projects etc. and also understand architectural research with special emphasis on India.</p>

## UNITS

UN	Name of the Unit	CSs	Questions
Four Case studies with analysis The projects to be include:			
1	Introduction to architectural evaluation.	CP Block 01 CSs 01-15	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
2	Techniques of analysis and evaluation.	CP Block 02 CSs 15-30	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
3	Value of appraisal / evaluation reports and reviews.	CP Block 03 CSs 31-45	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.



4	Techniques of report and review writing.	<b>CP Block 04</b> <b>CSs 46-60</b>	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
---	--	--	---

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1	Introduction to architectural evaluation in general and definition, purpose, scope and its applications to Architecture, fine arts literature etc.	CP Block 01
2	Techniques of analysis and evaluation employed in buildings, projects competitions etc. methods of appraisal / evaluation of building complexes and exhibitions.	CP Block 02
3	Value of appraisal / evaluation reports and reviews in the field of architecture fine-arts, literature. Their scope and merits	CP Block 03
4	Techniques of report and review writing, their application to architectural publications	CP Block 04

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
-TB1			
<b>Reference-Books</b>			
A34033-RB1	Research in Architecture by Architects by Dr. Lean Van Schaik		
A34033-RB2	Architecture and people by Eugene Raskin		
A34033-RB3	Architecture and Critical imaginations by Attoe Wayne		
A34033-RB4	Architecture Judgement by Collin Peters.		
<b>CD / DVD</b>			
-CD1			
<b>Web Links</b>			
-WL1			

# A34034: ARCHITECTURAL DOCUMENTATION

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
03	A34034	Architectural Documentation	4	56	4	60	20	80	100	STW

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be:</p> <p>To develop awareness and understanding of importance of Documentation, Research and Surveys practice of architecture .</p>

## UNITS

UN	Name of the Unit	CSs	Questions
1	Purpose of Documentation, Selection of the project.	CP Block 01 CSs 01-15	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
2	Research: historical research.	CP Block 02 CSs 15-30	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
3	Geodetic survey.	CP Block 03 CSs 31-45	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
4	The final presentation.	CP Block 04 CSs 46-60	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1	Purpose of Documentation: To Record Existing structure, to aim at conservation of the structure, etc. Selection of the project: Heritage documentation, Monograph of an Architect, Contemporary project, etc.	CP Block 01
2	Research: historical research related to Styles and contemporary works, influence of culture and technology, context etc.	CP Block 02
3	Geodetic survey: Topographic maps, road maps, site maps etc. Architectural survey: survey methodology, physical measure drawings, Photographic survey, Digital Architectural Photogrammetry, 2 D & 3D digital drawings, etc.	CP Block 03
4	The final presentation shall be a document of a small Architectural example or part of the structure, where the content will cover various issues mentioned above	CP Block 04

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
_____ -TB1			
<b>Reference-Books</b>			
A34024-RB1			
A34024-RB2			
A34024-RB3			
A34024-RB4			
A34024-RB5			
A34024-RB6			
A34024-RB7			
A34024-RB8			
A34024-RB9			
A34024-RB10			
<b>CD / DVD</b>			
_____ -CD1			
<b>Web Links</b>			
_____ -WL1			

# A34035: ELECTIVE 1 TRAFFIC & TRANSPORT DESIGN

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
03	A34035	Elective 1: Traffic & Transport Design	4	56	4	60	20	80	100	STW

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be able to understand: Evaluation of Urban Structure and Transportation, Management of Transportation system, policies in relation to the Environment considerations.</p>

## UNITS

UN	Name of the Unit	CSs	Questions
1	Evaluation of Urban Structure Transportation systems infrastructure, Transportation survey and studies	<b>CP Block 01</b> <b>CSs 01-15</b>	Students have to submit 'Report of Activities' in CA <b>and</b> 'Term Work' for end exam on these units.
2	Management of Transportation system, Regional Transport systems.	<b>CP Block 02</b> <b>CSs 15-30</b>	Students have to submit 'Report of Activities' in CA <b>and</b> 'Term Work' for end exam on these units.
3	Transport and Environment.	<b>CP Block 03</b> <b>CSs 31-45</b>	Students have to submit 'Report of Activities' in CA <b>and</b> 'Term Work' for end exam on these units.

4	Transport policies.	<b>CP Block 04</b> <b>CSs 46-60</b>	Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.
---	---------------------	--	---

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1	Evaluation of Urban Structure Transportation systems infrastructure and management, transportation systems and their types, design and operating characteristics, urban road hierarchy planning, engineering and management; criteria for road and junction improvements, arterial improvement techniques. Transportation survey and studies: Study area definitions, surveys and their types, sampling methods, survey techniques; designing O-D and other Traffic and transportation surveys, programming and scheduling, processing of travel data, analysis and interpretation of traffic studies.	<b>CP Block 01</b>
2	Management of Transportation system: Existing organizational and legal framework, traffic and environmental management techniques. Management techniques, review of existing traffic management schemes. Framework for evaluation of system option, plan preparation Regional Transport system: Importance of accessibility in regional transport planning. Role of road, rail, air and water transport systems. Regional transport systems, planning road network, planning for micro regions	<b>CP Block 02</b>
3	Transport and Environment: Traffic noise, factors affecting noise, noise abatement measures, standards. Air pollution standards, traffic safety, accident reporting and recording systems. Factors affecting road safety, transport planning for target groups, children, adults handicapped and women. Norms and guidelines for highway landscape, street lighting types, standards and design considerations, transport and environment, EIA of transport project	<b>CP Block 03</b>
4	Transport policies: Review of national, state and local level transport policies and their relevance in spatial and economic planning, pricing and funding of transport systems, transport technology, energy and environmental implication in transport planning in developing countries; planning for public transportation; planning for bicyclists and pedestrians. Regional road network planning, highway project planning and financing Public transportation planning. Overviews of system technologies, technological options, characteristics choice of technology corridor analysis integrated system plan concept, system selection, legal and institutional provisions, pricing and financing of public transport service.	<b>CP Block 04</b>

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
_____ -TB1			
<b>Reference-Books</b>			
A34035-RB1			

A34035-RB2			
A34035-RB3			
A34035-RB4			
A34035-RB5			
<b>CD / DVD</b>			
-CD1			
<b>Web Links</b>			
-WL1			

## A32035: ELECTIVE 2 INFRASTRUCTURE SERVICES

### PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

### COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
03	A32035	Elective 2: Infrastructure Services	4	56	4	60	20	80	100	STW

### PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be:</p> <p>Introduced to the artistic and social movement form of architecture characterized by anti-historicism, including speed, technology, youth and violence, and objects such as the car, the airplane and the industrial city. Futurism practiced in every medium of art, including painting, sculpture, ceramics, graphic design, industrial design, interior design, theatre, film, fashion, textiles, literature, music, architecture and even gastronomy. discipline thus seeking a systematic and pattern-based understanding of past and present, and to determine the likelihood of future events and trends.</p>

### UNITS

UN	Name of the Unit	CSs	Questions
1 to 4	<p>Case study of an existing large scale project of one of the building typologies like:</p> <p>a. High end hospitality industry, Super specialty hospitals, Airports &amp; mass transportation terminals, Research laboratories, High end IT parks &amp; establishments, High rise buildings, State Secretariat and assembly</p> <p>b. Mass Housing Project of a large magnitude</p>	<p><b>CP Block 01 to 04 CSs 01-60</b></p>	<p>Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.</p>

### DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP
----	-----------------------------	----

		<b>Block</b>
1 to 4	<p>Case study of an existing large scale project of one of the building typologies like:</p> <p>c. High end hospitality industry, Super specialty hospitals, Airports &amp; mass transportation terminals, Research laboratories, High end IT parks &amp; establishments, High rise buildings, State Secretariat and assembly</p> <p>d. Mass Housing Project of a large magnitude</p> <p>In view of the following aspects, within the project:</p> <p>1 Infrastructure development planning: financing issues and emerging options. Demand, gap and issues, pricing policies.</p> <p>2 Water Supply: Water Cycle and Water Resources. Water Balance. Per capita water supply, norms, Water quality, Treatment of water. Storage of Water. Planning and Design criteria for Distribution. Block Cost Estimation of water Supply Scheme. Water Losses and Un-accounted for Water. Rain Water Harvesting concept. Water Supply System. Watershed Management. Role of micro-level water management committees. Drainage and Sanitation. Basic planning and design criteria, norm, etc. Re-use and recycling of waste water. Treatment of waste water (conventional). Low cost treatment, land based treatment methods.</p> <p>3 Power (Electricity), Telecommunication, advanced communication services,</p> <p>4 Civic Amenities, Roads, Health care, Education, Recreation, Communication, Community halls, Markets, Security, Safety, (Fire station), etc.</p>	<b>CP Block 01 to 04</b>

### LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
_____ -TB1			
<b>Reference-Books</b>			
A32035-RB1			
A32035-RB2			
A32035-RB3			
A32035-RB4			
A32035-RB5			
A32035-RB6			
<b>CD / DVD</b>			
_____ -CD1			
<b>Web Links</b>			
_____ -WL1			



# A34036: DESIGN STUDIO 3

## PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture
4	Level	PG
5	Course Used in	V42: M.ARCH. (Construction Management)

## COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
03	A34036	Design Studio 2	8	112	8	120	40	160	200	SV

## PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be able to:</p> <p>Acquire a comprehensive base of knowledge required for the practice of architecture.</p> <p>Develop awareness in physical context about implications of limited sources in design decision making.</p>

## UNITS

UN	Name of the Unit	CSs	Questions
1 to 8	Architectural Design Project of a large magnitude in one of or similar categories of building typology emphasizing on need of Advance construction techniques and using modular co-ordination, pre-fabricated elements and technology.	<p><b>CP</b> <b>Block</b> <b>01 to</b> <b>08</b> <b>CSs</b> <b>01-120</b></p>	<p>Students are expected to complete sufficient number of projects related to this course, with regular critical remarks and assessment from the counselor and peer students, during the semester. External and internal experts will jointly evaluate these projects for 100 marks with viva after presentation by the student for about 5-7 minutes</p>

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1 to 8	<p>An in-depth research and analysis of activities below to evaluate the progress of work:</p> <ol style="list-style-type: none"> <li>a. Identify a project requiring use of prefabrication, modular coordinated elements.</li> <li>b. Establish need &amp; substantiate use of prefabrication, modular coordinated elements</li> <li>c. Geography, local conditions and Climatic conditions.</li> <li>d. Special design considerations for the devising a 3 dimensional module – grid.</li> <li>e. Designing for Considerations of manufacture, transport, handling, and specialized equipment and execution.</li> <li>f. Case study/ies to substantiate the design philosophy,</li> <li>g. Evolving Design Brief for the Project.</li> </ol> <p>The final project work will include Architectural drawings &amp; relevant details, case study/ies, reports for the research/documentation for the project.</p>	CP Block 01 to 08

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
-TB1			
<b>Reference-Books</b>			
A34016-RB1	Planning and Architecture Edited by Dennis Sharp Editor		
A34016-RB2	Planning feasible learning places By Leggett S Bru Baker C. W. & Cohodes A.		
A34016-RB3	Methods in Architecture By. Town Health		
<b>CD / DVD</b>			
-CD1			
<b>Web Links</b>			
-WL1			

## SEMESTER 04

### A34041: M. ARCH. (CONSTRUCTION MANAGEMENT) DISSERTATION 1

#### PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture (General)
4	Level	UG
5	Course Used in	V42: M.ARCH. (Construction Management)

#### COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
04	A34041	M. Arch. (General) Dissertation 1	8	112	8	120	40	160	200	SV

#### PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
For successful completion of this course, student should have successfully completed: <ul style="list-style-type: none"><li>• Passed the B.Arch.</li><li>• <b>OR</b> its equivalent examination.</li></ul>	After successful completion of this course, student should be able to: <ul style="list-style-type: none"><li>• Pursue an idea of research with depth of inquiry, criticality and logic and carry out an in-depth investigation of an area of architecture that he/she is interested in.</li></ul>

## UNITS

UN	Name of the Unit	CSs	Questions
1 to 8	<p>Studio: The student will be guided in their work by their selected / appointed guides throughout the three courses to produce an illustrative, written dissertation. The dissertation calls for a substantial impetus on the quality and quantity of output, besides having a thrust on newer and more relevant areas of research / design and plan intervention / application of planning, design and analytical tools and techniques. The choice of subject, formulation of Project, Site investigation and selection, and finally culmination in the concrete design demonstration shall depend upon many factors such as student's personal interest, circumstances and abilities. A careful check shall be made to see that access is available to relevant buildings and to appropriate libraries, record offices, laboratories and other technical resources. Students are expected to complete the project, with critical remarks and assessment from the counselor.</p> <p>Following is a list of few topics for reference; the student is free to choose any other topic of their interest to appraise an existing or proposed project, approved by the Faculty in charge:</p> <ul style="list-style-type: none"> <li>Building Information Modeling</li> <li>LEED-Green Building Construction Management procedures</li> <li>Land Use and Planning</li> <li>Financial Management</li> <li>Lean Construction</li> <li>Quality Control and Safety Procedures</li> <li>Construction Laws</li> </ul>	<p><b>CP Block 01 to 08 CSs 01-120</b></p>	<p>Students have to submit 'Report of Activities' in CA and 'Term Work' for end exam on these units.</p>

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1 to 8	<p>Studio: The student will be guided in their work by their selected / appointed guides throughout the three courses to produce an illustrative, written dissertation. The dissertation calls for a substantial impetus on the quality and quantity of output, besides having a thrust on newer and more relevant areas of research / design and plan intervention / application of planning, design and analytical tools and techniques. The choice of subject, formulation of Programme, Site investigation and selection, and finally culmination in the concrete design demonstration shall depend upon many factors such as student's personal interest, circumstances and abilities. A careful check shall be made to see that access is available to relevant buildings and to appropriate libraries, record offices, laboratories and other technical resources. Students are expected to complete the project, with critical remarks and assessment from the counselor.</p>	<p><b>CP Block 01 - 08</b></p>

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
A25084-TB1			
<b>Reference-Books</b>			
A25084-RB1			
A25084-RB2			
A25084-RB3			
A25084-RB4			
A25084-RB5			
A25084-RB6			
A25084-RB7			
A25084-RB8			
<b>CD / DVD</b>			
A25084-CD1			
A25084-CD2			
<b>Web Links</b>			
A25084-WL1			

## A34042: M. ARCH. (GENERAL) DISSERTATION 2

### PROGRAMME INFORMATION

SN	Description	Details
1	University	Yashwantrao Chavan Maharashtra Open University Nashik - 422 222, Maharashtra, India Website: <a href="http://www.ycmou.com/">http://www.ycmou.com/</a>
2	School	School of Architecture, Science and Technology
3	Discipline	Architecture (General)
4	Level	UG
5	Course Used in	V42: M.ARCH. (Construction Management)

### COURSE INFORMATION

Sem	Code	Course Name	CP	CST	CAT	ST	CA	EE	TM	Type
04	A34042	M. Arch. (General) Dissertation 2	16	224	16	240	80	320	400	SV

### PRESUMED KNOWLEDGE AND LEARNING OBJECTIVES

Presumed Knowledge	Learning Objectives
<p>For successful completion of this course, student should have successfully completed:</p> <ul style="list-style-type: none"> <li>Passed the B.Arch.</li> <li><b>OR</b> its equivalent examination.</li> </ul>	<p>After successful completion of this course, student should be able to Pursue an idea of research with depth of inquiry, criticality and logic and carry out an in-depth investigation of an area of architecture that he/she is interested in.</p>

### UNITS

UN	Name of the Unit	CSs	Questions
1 To 16	Culmination of the post-graduate program in architecture.	<b>CP Block 01 to 16 CSs 01-240</b>	Students are expected to complete sufficient number of projects related to this course, with regular critical remarks and assessment from the counselor and peer students, during the semester. External and internal experts will jointly evaluate these projects for 100 marks with viva after presentation by the student for about 5-7 minutes.

## DETAILED SYLLABUS

UN	Detail Syllabus of the Unit	CP Block
1 to 16	<p>Studio: The student will be guided in their work by their selected / appointed guides through out the three courses to produce an illustrative, written dissertation. The dissertation calls for a substantial impetus on the quality and quantity of output, besides having a thrust on newer and more relevant areas of research / design and plan intervention / application of planning, design and analytical tools and techniques. The choice of subject, formulation of Design Programme, Site investigation and selection, and finally culmination in the concrete design demonstration shall depend upon many factors such as student's personal interest, circumstances and abilities. A careful check shall be made to see that access is available to relevant buildings and to appropriate libraries, record offices, laboratories and other technical resources. Students are expected to complete the project, with critical remarks and assessment from the counselor</p>	<b>CP Block 01 to 16</b>

## LEARNING RESOURCE DETAILS

LR Code	Title Author	Edition Year	ISBN Publisher
<b>Text-Books</b>			
A25085-TB1			
A25085-TB2			
<b>Reference-Books</b>			
A25085-RB1	Design Methods by Jones C. J.	(1992)	John Willey and Sons, Inc. ISBN- 0-471- 28496-3
A25085-RB2	How Designers think: the design process demystified by Lawson B.	2005	Architectural Press, Oxford ISBN 13-978-0-7506- 6077-8
A25085-RB3	Elements of Design: Rowena Reed Kostellow and the Structure of Visual Relationships Hannah G.G	2002	Princeton Architectural Press, NY, USA ISBN 1-56898-329-8
A25085-RB4	Thinking Design By Prof S Balram		
A25085-RB5	Visual Thinking by Frank M. Young		
A25085-RB6	The Art of Looking Sideways		
A25085-RB7	Concepts and Responses		
<b>CD / DVD</b>			
A25085-CD1			
A25085-CD2			
<b>Web Links</b>			
A25085-WL1			
A25085-WL2			