

Instructors:

## School of Planning and Architecture: Vijayawada

(An institution of National Importance under the Ministry of Human Resource Development, Govt. of India)

Survey No.4/4, ITI Road, Vijayawada-520008, Andhra Pradesh, India

Class: III Yr B. Arch V Sem A.Y. 2023-24

**Internal Assessment: 200** 

Total Marks: 400

**External Theory Exam: 200** 

#### **Department of Architecture**

Course: ARC 311 - Architectural Design V

Dr. Amitava Sarkar, Ar. Karthik Ch, VF(Section-A)

Dr. Faiz Ahmed, Ar. Madhava Rao.T, VF(Section-B)

Contact Periods/ week: 12 (05 on Monday + 07 on Friday)

Lecture Plan Credits: 12

**Attendance:** Min 75% **Min. Passing Marks:** Passing Marks:

#### **Course Objective:**

• To enable the students to observe, document, interpret and appreciate the conditions of a site and its context (social, cultural, heritage, physical and so on) as prime generators of design;

• To enable students to build building and site level strategies as a contextual response in line with urban strategy;

• To enable students to identify, design and speculate common spaces and public Expressions

Course Outline: The course involves the students to study and understand the characteristics of the built Environment in an urban context having significant and distinctive architectural feature. Through site visits and studio exercises, students are to be exposed to the sense of the place, social and physical relationships and cultural milieu. The students are expected to bring design with connectivity, openness, and public interface, alleviating isolation, fosters tolerance, and gives meaning to places. In a broad level this studio should investigate contextual response and place-making in architecture, responding to, 1) the disintegration of urban fabric; 2) the ineffective use of space; and 3) the lack of a coherent urban strategic plan.

	<u>LECTURE PLAN</u>				
WEEK	DATE	TOPIC OF CLASS LECTURE & DISCUSSION	TOPIC OF STUDIO WORK& ASSIGNMENTS / REMARKS		
1	Week-1 14-07-23	Intorductory class and Lecture session on Urban Context, Heritage Importance on the city. Briefing the Design of AD V	Understanding the City/Expression of City through 10 lines		
2	Week-2 20-07-23 & 21-07- 23	Lecture session on Urban Built fabric & Heritage Character of the city	Introduction to the Design Problem - 1 and Documentation of Cities and its influence of Surroundings & Heritage Character		
3	Week-3 27-07-23 & 28-07- 23	Selection of City, Data Collection , Analysis, Synthesis & Inferences	Data Collection & Discussion with respective groups on the inputs required Review of the Presentation-1		
4	Week-4 03-08-23 & 04-08- 23	Data Collection , Analysis, Synthesis     Inferences, Inititating     Documentation work	Presentation -1 on the Design Problem-1 & assessment		
5	Week-5 10-08-23 & 11-08- 23	Site Identification for Major Design Problem in Urban Context, Site Analysis & Data Collection relevant to the site study	Review of Documentation work		
6	Week-6 17-08-23 & 18-08- 23	Lecture on Basics about Design of a Public Building/ Byelasws and Types of Construction Systems Tour Iternary preperation, Identification of Casestudy areas, preparation of framework of study	Submission of Documentation work Preparation of casestudy Check list		

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7	Week-7 24-08-23 & 25-08- 23	Study Tour	Study Tour
8	Week-8 31-08-23 & 01-09- 23	Study Tour	Study Tour
9	Week-9 07-09-23 & 08-09- 23	Introduction of Major Design Problem, Desktop cases studies,	Tour Report Preparation Framing of requirements & Contextual Study
10	Week-10 14-09-23 & 15-09- 23	Site Study & Analysis, Inferences from the Context study	Mid-Semester of work
11	Week-11 21-09-23 & 22-09- 23	Site Study & Analysis, Inferences from the Context study	Site-zoning, Concept Developement Periodic Review
12	Week-12 28-09-23(Holiday) & 29-09-23	Conceptual Developement & preparation of Schematic Drawings	Siteplan/Plans/ Sections/ Elevations
13	Week-13 05-10-23 & 06-10- 23	Conceptual Developement & preparation of Schematic Drawings	Studio Discussions/Work/ Individual Design Discussion
14	Week-14 12-10-23 & 13-10- 23	Preliminary design with single line drawings	Studio Discussions/Work/ Individual Design Discussion
15	Week-15 19-10-23 & 20-10- 23 (Holiday)	Preliminary design with single line drawings	Studio Discussions/Work/ Individual Design Discussion
16	Week-16 26-10-23 & 27-10- 23	•Scheme Drawings & Finalisation of Model	Studio Discussions/Work/ Individual Design Discussion
17	Week-17 02-11-23 & 03-11- 23	•Final Detailing of Drawings	Studio Discussions/Work/ Individual Design Discussion
18	Week-18 09-11-23 & 10-11- 23	•Final Detailing of Drawings	Studio Discussions/Work/ Individual Design Discussion
19	Week-19 16-11-23 & 17-11- 23	FINAL SUBMISSION of Presentation Drawings & Model	Plans/ Sections/ Elevation/ Site Plan/ Views/ 3d Models etc.

## **Reference Books:**

1.Cullen, G. (1961). The Concise Townscape. New York: Van Nostrand.

2. Giedion, S. (2009). Space, Time and Architecture, rev. Ed. Cambridge: Harvard University Press.

3.Rossi, A. (1989). Architecture of the city. Massachusetts: The MIT Press.

4. Schulz, N. C. (1988). Architecture: Meaning and Place - selected Essays. 1st American Ed. New York: Rizzoli.

5. Schulz, N. C. (1991). Towards a Phenomenology of Architecture. New York: Rizzoli.

6.Steele, J. (2005). The Architecture of Rasem Badran - narratives on people and place. Thames & Hudson.

7.Thomas, D. (2002). Architecture and the Urban Environment-A vision for the new age. Oxford: Architectural Press.

8.Lynch, K., Popelová, L., & Huťa, J. (2004). Image of the city.

**Head of Department:** 

**Cource Instructors:** 

sd/-

sd/-Dr. Uma Sankar Basina

# SCHOOL OF PLANNING AND ARCHITECTURE, VIJAYAWADA (LECTURE PLAN)

Subject: Working Drawings (ARC312)

Class: B.Arch, V Semester

Faculty: Dr. D. Srinivas, Dr. M. Kranti Kumar, T. Madhava Rao, Dr. RNS Murthy

Dept: Architecture Number of Hours: 05

Internal Marks: 50 External Marks: 50 Total Marks: 100

## **Objective:**

To introduce Working drawings and their significance in the construction of buildings.

- > To teach the essential components of working drawings, notations, drawing standards, Strengthen the students' knowledge about preparing working drawings for various building elements.
- To enable students to learn the intricacies of working drawings to resolve construction details, collaborate with other construction related fields and consultants and finally 'Good for Construction' drawings clear enough and easily understood by the construction crew even in the absence of the architect (small scale projects).

S.NO	DATE	TOPIC OF CLASS LECTURE & DISCUSSION	REMARKS
1	Week 1	Introduction to Working Drawings	Lecture/Studio
2	Week 2	✓ Set out plan ✓ Centre line/Face line ✓ Column Layout	Lecture/Studio
3	Week 3	<ul> <li>✓ Pile/Footing Marking</li> <li>✓ Pile cap/Footing</li> <li>✓ Plinth Beam Layout</li> <li>✓ Foundation cross-section</li> </ul>	Lecture/Studio
4	Week 4	<ul><li>✓ Form Work</li><li>✓ Roof Beam Layout</li><li>✓ Slab Details</li></ul>	Lecture/Studio
5	Week 5	✓ Staircase Drawing	Lecture/Studio
6	Week 6	<ul> <li>✓ Brickwork</li> <li>✓ Opening Details (Doors and Windows)</li> <li>✓ Window Grill Design</li> </ul>	Lecture/Studio
7	Week 7	✓ Detail Sections and Elevations	Lecture/Studio
8	Week 8	✓ Review	Lecture/Studio
9	Week 9	MID -TERM ASSESSMENT	Lecture/Studio
10	Week 10	<ul><li>✓ Electrical Layout Details</li><li>✓ Plumbing and Sanitary Layout Details</li></ul>	Lecture/Studio
11	Week 11	✓ Flooring Details (Internal and External) ✓ Terrace Floor Plan	Lecture/Studio

12	Week 12	✓ Compound Wall And Gate Design	Lecture/Studio
13	Week 13	✓ Toilet Details	Lecture/Studio
14	Week 14	✓ Kitchen Details	Lecture/Studio
15	Week 15	✓ Reserve	Lecture/Studio
16	Week 16	✓ Reserve	Lecture/Studio

# **Tentative Break-up of Internal Assessment**

S. No.	Evaluation	Marks	Note
1	Review	15	Marks allotted at each stage is tentative
2	Mid Term Assessment	20	2. New stages or categories of evaluation may be included if and
3	Review	15	when the need arises

## **Reference Books**

# References:

- 1) Ching. DK, (2014) "Building Consstruction Illustrated", Wiley.
- 2) Barry, (1999) "The Construction of Building", Blackwell Science, London.
- 3) MacKay. WB, (1971) "Building Construction", Longman...
- 4) Rangwala, (2013) "Building Construction", Charotar Publishing House, Anand.
- 5) Kumar Sushil, (2010) "Building Construction", Standard Publishing Distributors.
- 6) Building and Construction Authority. (2005). CONQUAS-21. Singapore: The BCA Construction Quality Assessment System.
- 7) Jefferis, A. and Madsen, D.A. (2005). Architectural Drafting and Design. 5th Ed. New York: Thomson Delmar Learning.
- 8) Jeong, K-Y. (2010) Architecture Annual. Seoul: Archiworld Co.
- 9) Joe, B. (Ed). (2002). Details in Architecture: Vol. I-V. Victoria: The Images Publishing group.
- 10) Osamu, A. W., Linde, R. M. and Bakhoum, N. R. (2011). The professional practice of architectural working drawings. 4th Ed. Hoboken: John Wiley & Sons.
- 11) Weston, R. (2004). Plans Sections Elevations Key buildings of the twentieth century. London: Laurence King Publishing.

NOTE: The work (topics covered) of each Studio has to be submitted in the consecutive studio.

The hard copy of the work has to be submitted in every studio.

Sd/-

Dr. D. Srinivas, Dr. M. Kranti Kumar, Dr. RNS Murthy, T. Madhava Rao



# School of Planning and Architecture: Vijayawada

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## **Department of Architecture**

ARC313; Building Services - II Course:

Contact Periods/ week: 03 periods.(55 min each)

Karthik Chadalavada Instructors:

Class: IIIrd Yr B. Arch V Sem A.Y. 2023-24 **Internal Assessment:** 50

**External Theory Exam: 50** 

Total Marks: 100

Wednesday (03 periods) Credits: 3

Time Table:

Objective: To develop the understanding of important Services in buildings, definitions and terms used, functioning and their applications in building.

Out Line of the Course: Fundemental Electrical Concepts, Electrical Systems in Built-Environment, Air Conditioning, Fire Safety in Buildings & Building Automation.

# **LECTURE PLAN**

Week-1	INTRODUCTION TO SERVICES	
week-1	Importance of the subject for Architecture course Expectations and Learning outcomes Different types of Services in a building	Lecture
Week-2	UNIT-3; AIR CONDITIONING Introduction to Air conditioning Working of Air conditioning, Refrigiration cycle	Lecture
Week-3	UNIT-3; AIR CONDITIONING Systems of Air conditioning: Unit, split, package etc, Air conditioning systems - Decentralized	Lecture
Week-4	UNIT-3; AIR CONDITIONING Air conditioning systems - Semi centralized & Centralized system	Lecture
Week-5	UNIT-3; AIR CONDITIONING Air conditioning systems - Centralized system, Ducting & airconditioning layout, fittings & fixtures.	Internal Assessment -1 CASE STUDY/DESKTOP STUDY ON DIFFERENT TYPES OF AIRCONDITIONING SYSTEMS AVAILABLE IN THE MARKET
Week-6	UNIT-1 FUNDEMENTAL ELECTRICAL CONCEPTS Introduction, Fundemental principles of Electricity, Voltage, amperage, wattage, Generation & distribution of power.	Lecture
Week-7	UNIT-1 FUNDEMENTAL ELECTRICAL CONCEPTS LT & HT lines, Electricity conductors, Indian Electricity Act. Introduction to Unit-2	Lecture
Week-8	UNIT-2; ELECTRICAL SYSTEMS IN BUILT- ENVIRONMENT Electricity distribution in buildings, Service wires, meter boards, Circuits, Switch boards.	Lecture
	Week-4 Week-5 Week-6	Week-2  UNIT-3; AIR CONDITIONING Introduction to Air conditioning Working of Air conditioning, Refrigiration cycle  UNIT-3; AIR CONDITIONING Systems of Air conditioning: Unit, split, package etc, Air conditioning systems - Decentralized  UNIT-3; AIR CONDITIONING Air conditioning systems - Semi centralized & Centralized system  UNIT-3; AIR CONDITIONING Air conditioning systems - Centralized system, Ducting & airconditioning layout, fittings & fixtures.  UNIT-1 FUNDEMENTAL ELECTRICAL CONCEPTS Introduction, Fundemental principles of Electricity, Voltage, amperage, wattage, Generation & distribution of power.  UNIT-1 FUNDEMENTAL ELECTRICAL CONCEPTS LT & HT lines, Electricity conductors, Indian Electricity Act. Introduction to Unit-2  UNIT-2; ELECTRICAL SYSTEMS IN BUILT-ENVIRONMENT Electricity distribution in buildings, Service wires,

9	Week-9	ENVIRONMENT Electrical safety devices in buildings, MCBs, Earthing, Introduction of Electric layouts.	Lecture
10	Week-10	Mid-semester examination	Mid-semester examination
11	Week-11	UNIT-4; FIRE SAFETY IN BUILDINGS Introduction to Fire, Causes of fire & Spread of fire, fire fighting, protection & fire resistance, equipment & methods	Lecture
12	Week-12	UNIT-4; FIRE SAFETY IN BUILDINGS Code of fire safety, fire regulations, fire insurance, combustability of materials, Structural elements, planning & design of fire escape routes & elements.	Lecture
13	Week-13	UNIT-4; FIRE SAFETY IN BUILDINGS Fire protection requirments, sprinklers, smoke derectors, fire dampers, fire doors & water curtains etc.	Lecture
14	Week-14	UNIT-5; BUILDING AUTOMATION Concept and application of Automation Systems in buildings. Design issues related to building automation and its effect on functional efficiency.	Lecture
15	Week-15	UNIT-5; BUILDING AUTOMATION Components of building automation systems integrating HVAC, electrical, lighting, security, fire-fighting, communication etc. Current trend and innovation in building automation systems;	Lecture
16	Week-16	UNIT-5; BUILDING AUTOMATION  Knowledge base and decision support systems and building automation and management system; Application of expert system in building automation.	Lecture
17	Week-17	CLASS TEST/PRESENTATIONS	Internal Assessment -3 To Design an Electrical Layout for 2 BHK House or alternative in CAD in the Template circulated with Furniture Layout, Dimensions and Details
S. No.		Stages of Evaluation	Weightage
1		First stage: Assessment	15
2		Mid Semester Examination	20
3		Third stage: Assessment	15
		Total	50

Outcomes: Students completing the course will be able to comrehend the Electrical Concepts, HVAC and automation in the building thoroughly and integrate the learning into architectural design.

## Reference Books:

- 1. Abnwos, F. and Others. Electrical Engineering Hand Book.
- 2. Bovay, H. E. (1981). Handbook of Mechanical & Electrical systems for Buildings. McGraw-Hill Higher Education.
- 3. Bureau of Indian Standards. (2005). Code of Practice for Electrical Wiring Installations IS-732.
- 4. Electrical Wiring & Contracting (Vol.1 to Vol.4).
- 5. Sawhney, G. S. (2006). Fundamentals of Mechanical Engineering: Thermodynamics, Mechanics and Strength of Materials. New Delhi: Prentice Hall of India.
- 6. Taylor, E. O. and Rao, V. V. L. (1971). Utilisation of Electric Energy in SI units. Bombay : Orient Longman.
- 7. Willim, J. McG. (1971). Mechanical & Electrical Equipment for Buildings.
- 8. National Building Code (NBC-2016)

Cource Instructors: Head of Department :

sd/-

(Karthik Chadalavada) (Dr. Uma Sankar Basina)



# School of Planning and Architecture: Vijayawada

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## **Department of Architecture**

Course:B Arch Class: III yr semester V

Instructors: Jagath kumari.D

Attendance: 75%

Internal Assessment Max. Marks: 50 External Assessment Max. Marks: 50

# **TEACHING PLAN**

S.N			
O	WEEK	TOPIC	REMARKS
1	Week-1	Introduction to RCC and steel structures Advantages and Disadvantages of concrete, Important properties of concrete Workability of concrete its laboratory tests. Significance and functions of reinforcement	Lecture class
2	Week- 2	. Limit state method of design of RCC and Steel structures. Indian Standard codes of practice IS 456-2000 and IS 800. Assumptions, Mix proportions and Mix Design, Design procedure of Beams	,,
3	Week - 3	Types of Beams, Neutral axis, balanced, under & over reinforced sections. Design of RCC beams for flexure, shear & bond. Concept and design of Steel beams.  Design of Singly reinforced Beams, problems  Reinforcement detailing of beams drafting	L+S
4	Week- 4	Design of Doubly reinforced Beams, problems	L+S
5	Week- 5	Case study/ assignment	
6	Week- 6	Design of beams with respect to strength and stiffness.	L
7	Week - 7	Reinforcement detailing of beams drafting	L+S
8	Week- 8	Different type of RCC slabs. Concepts and design of One way and Two way slabs. Design requirements of slabs Types of slabs	L

S.N O	WEEK	TOPIC	REMARKS
9	week - 9	Design procedure of one way slabs and two way slabs	Studio
10	Week -10	Problems on one way slabs with different spans and grades of materials.	Studio
11	Week-11	Problems on two way slabs with different spans and grades of materials.	Studio
12	week – 12	Concepts and design of axially loaded RCC columns. Isolated footings. Types of columns, Different end conditions	lecture
13	Week- 13	Design procedure of columns, end conditions. Design of columns, problems, detailing.	L+S
14	Week- 14	Concepts and design of Steel Columns, Built up Columns. Lacing and Battening. Column bases.	Studio
No. of Concession, Name of	Week-15	reinforcement detailing columns drafting	L+S
16	week - 16	Foundations types, Design of foundations	L+S
17	Week -17	Reinforcement detailing, review	Studio

# **Tentative Break-up of Internal Assessment Marks**

S.No.	Stages of Evaluation	Weightage	Note
1	Assignments 1 to 4 (average)+ Lab and class room performance	30	1.
2	Internal examination	20	
3	End external examination	50	
	Total	100	

Course Instructors Jagathkumari . D Assistant professor.

Head of the Department

# Planning and

# School of Planning and Architecture, Vijayawada

(An institution of National Importance under the Ministry of Education, Govt. of India)

Survey No.4/4, ITI Road, Vijayawada-520008, Andhra Pradesh, India

**Department of Architecture** 

Course: ARC315: History of Architecture	Class: B. Arch Year III Sem V (2023-24)	Coordinator: Dr. Prashanti Rao and VF/AF
Credits: 3 (3T)	Contact Hours per week: 03 hrs.	Time Table: <b>Thursday, 09:00 am – 11:45 am</b>
Internal Assessment Marks: 50	External Theory Exam: 50	Total Marks: 100
Min. Attendance: 75%	Min. Marks: 40% both in Internal & External	

## **Subject Objective:**

- 1. To provide an opportunity of understanding social, religious, and political character, construction methods, building materials, and their influence on the built form and settlement pattern.
- 2. To understand the combined influence of geology, geography, climate, beliefs, religion, and culture on architecture must be highlighted so as to appreciate how architecture is embedded in place specific context.
- 3. To enable students to do a comparative evaluation of various civilizations, and appreciate chronological developments along timelines and across geographies.
- 4. To equip the students with an ability to study architectural history as a means for critical appraisal than a mere understanding of history.

Lecture Plan:

Week No.	Date	Topic (Lecture/ Discussion/	Methodology/ Details
WCCR 110.	Date	Assignment)	Wittinddology/ Details
Week 01	20.07.2023	Unit 01 – Colonial Architecture	Presentation and Classroom discussion
Week 02	27.07.2023	Unit 01 – Colonial Architecture	Presentation, Classroom discussion and short quiz
Week 03	03.08.2023	Unit 01 – Colonial Architecture	Assignment 01 – (15 Marks) Architects Presentation (Students to select an architect of their choice and present02 best works along with his/ her idea and language of design)
Week 04	10. 08.2022	Unit 02 – Modernism and International Style	Presentation and Classroom discussion
Week 05	17.08.2022	Unit 02 – Modernism and International Style	Presentation, Classroom discussion and short quiz
Week 06		Field Trip -19-08-2023 to 2-09-2023	
Week 07	07.09.2023	Unit 02 – Modernism and International Style	Assignment Sketches (Neo-Classical, Art Deco, Arts and Crafts Movement, Colonial Bungalow, Indo Saracenic)
Week 08	14-09-2023 (Mid- Sem Assessment Day)	Mid-Semester Assessment week without suspension of class	Display of Assessment -2 and Discussion- (20 Marks)
Week 09	21.09.2023	Unit 02 – Modernism and International Style	Evolving theories and newer concepts via various case examples and architect studies.
Week 10	28-09-2023	Holiday-MiladUnabi as per Academic Calendar	
Week 10	05.10.2022	Unit 03 – Post Independence Architecture in India	Presentation and Classroom discussion
Week 11	09-10-2023	Unit 03 – Post Independence Architecture in	Presentation, Classroom discussion and short quiz

		India	
Week 12	19.10.2023	Unit 04 – Post and Late Modern Architecture	Video Lesson and Report Writing
	Dus	shera Vacation 20.10.2023 t024.10.202	3
Week 13	26.10.2023	Unit 04 – Post and Late Modern Architecture	Presentation, Classroom discussion
Week 14	02.11.2023	Unit 04 – Post and Late Modern Architecture	Presentation and Quiz
Week 15	09.11.2023	Unit 05 – Contemporary Architecture	Evolving theories and newer concepts via various case examples and architect studies.
Week 16	16.11.2023	Unit 05 – Contemporary Architecture	Assignment 03 – (15 Marks) Criticisms in contemporary architecture. Group Work - (Comic Strip)
Week 17	20.11.2023	Unit 05 – Contemporary Architecture	Presentation and Quiz

End of Classes -22.11,2023

## **END SEMESTER EXAMINATIONS (4.12.2023- 16.12.2023)**

#### **Learning Outcomes:**

- 1. Identify and differentiate the style of Architecture of Colonial, Modernism, Post-Independence and post and late modern time period.
- 2. Compare and analyse how these different styles of Architecture and architects work was evolved and influenced each other.
- 3. Analyse the influence of social, religious and political character of these periods on built form, spatial configurations and construction methods practiced during the specific time.
- 4. Apply the different ways of influence of geology, geography, climate, beliefs religion and culture on architecture in their Architecture Design studio projects.
- 5. Analyse and discuss the architecture part of the history instead of merely focusing on history.

#### References:

- 1. Benevolo, L. (1977). History of Modern Architecture. 2 Vols., reprint, MIT Press.
- 2. Curtis, W. J. (1982). Modern Architecture since 1900. Phaidon Press.
- 3. Frampton, K. (1994). Modern Architecture: A Critical History. London: Thames & Hudson.
- 4. Jenks, C. (2007). The Story of Post-Modernism. London: Wiley and Sons.
- 5. Lang, J., Desai, M. and Desai, M. (2000). Architecture and independence: The search for identity India 1880 to 1980. New Delhi: Oxford University Press.
- 6. Lang, J.T (2002). A Concise History of Modern Architecture in India.
- 7. Lu, D (Ed). (2011). Third World Modernism, Architecture, Development and Identity. Oxon: Routledge.
- 8. Mehrotra, R. (2011). Architecture in India Since 1990. Pictor.
- 9. Metcalf, T. (1980). An imperial Vision. Electa: Faber & Faber. Schulz, C. N. (1993). Meaning in Western Architecture. New York: Rizzoli International Publishers.
- 10. Singh, M. and Mukherjee, R. New Delhi- Making of a Capital. New Delhi: Roli Books.
- 11. Tafuri, M. (1980). Modern Architecture. Harry N. Abrams Inc.
- 12. Verma, P. (2010). Becoming Indian The Unfinished Revolution of Culture and Identity. New Delhi: Penguin India.

Dr. Uma Shanker Basina	Dr. Prashanti Rao
(Head of Department)	(Subject Coordinator)

# <u>Teaching Plan for ARC316 Theory of Settlement Planning, V Sem. B.Arch, 2023-24 A.Y.</u> School of Planning and Architecture, Vijayawada



## School of Planning and Architecture: Vijayawada

(An institute of National Importance under the Ministry of Education, Govt. of India) S.No. 4/4, ITI Road, Vijayawada – 520008, Andhra Pradesh, India

Course: ARC316 - Theory of Settlement Planning Class: V Sem. B.Arch, 2023-24 A.Y Section: A

Instructors: SVK Kumar Contact Periods/week: 03 (55 min. each) Timetable: Tuesday, 9:00 – 11.45 AM

Internal Assessment Marks: 50 External Theory Exam: 50 Total Marks: 100

Attendance: 75% Min. Min. Passing Marks: 40% each in Internal & External Assessment, 40% in Aggregate

#### Objective

The Course imparts Students an exposure of the historical evolution of urban settlements and connected development theories towards a clear understanding of the morphological dimensions of urban patterns and spaces. The course is intended to provide the students an overview and understanding of the land related theories and policy making in cities. It also helps in understanding of varied dimension related to housing demand-supply challenges and land-use planning.

#### Outcomes

Students completing this course will be able to:

- 1. Understand the social, economic and spatial dimensions at the national, regional and local levels as a premise in which an architectural product is likely to be placed.
- 2. Make appropriate choices for further studies in related domains of education.

S.No.	Week No.	TOPIC OF CLASS LECTURE & DISCUSSION	CLASS ACTIVITY & ASSIGNMENTS
1	18.07.2023 Week 1	Introduction to the Course ✓ Settlements and their constituents	Lecture and Group discussion
2	25.07.2023 Week 2	City as an architectural form and civilisation  ✓ Factors influencing Architecture – Relation between human beings and habitat  ✓ Influences of people's beliefs, their natural/learned response to nature and reflections on Architecture	Assignment-I on "Origin and growth of ancient settlements"
3	01.08.2023 Week 3	Settlement as a unit of civilisation  ✓ Urban and Rural settlements – differences in land uses, hierarchy, consolidation pattern etc.  ✓ General pattern of consolidation – by normal understanding  ✓ Problems of Indian Cities	Lecture
4	08.08.2023 Week 4	Origin and growth of settlements  ✓ Factors influencing formation and consolidation of settlements  Resultant character of settlements (viz.,  Transit/Health/Education/Topography etc.), City functions	Lecture and Group discussion on the Assignment
5	15.08.2023 Week 5	Independence Day	National Holiday
6	22.08.2023 Week 6	Field Work / Case Study visits	
7	29.08.2023 Week 7	Field Work / Case Study visits	
8	05.09.2023 Week 8	River Valley Civilisations  ✓ Re-cap from the History of Architecture: Egypt / Nile valley, Indus valley and Aryan civilisations	Lecture and Discussion
9	12.09.2023 Week 9	Mid Semester Assessment	Internal Assessment – II
10	19.09.2023 Week 10	Ganesh Chaturthi	Holiday
11	26.09.2023 Week 11	River Valley Civilisations  Re-cap from the History of Architecture: Egypt / Nile valley,  Indus and Aryan civilisations	Discussion and Feedback

S.No.	Week No.	TOPIC OF CLASS LECTURE & DISCUSSION	CLASS ACTIVITY & ASSIGNMENTS
12	03.10.2023 Week 12	Principles of settlement planning in ancient Greece, Rome and India  ✓ Vedic Towns by Form and character ✓ Ancient Town Planning of the West (Greece & Italy) ✓ Earliest Town Forms – structural features	Submission of Assignment-I
13	10.10.2023 Week 13	Principles of settlement planning in ancient Greece, Rome and India  ✓ Vedic Towns by Form and character ✓ Ancient Town Planning of the West (Greece & Italy) ✓ Earliest Town Forms – structural features	Assignment-II on "Origin and growth of modern settlements"
14	17.10.2023 Week 14	Principles of settlement planning in ancient Greece, Rome and India  ✓ Renaissance city Planning ✓ Industrial Revolution ✓ Integrate with ongoing HoA class on the above topics	Lecture
15	24.10.2023 Week 15	Principles of settlement planning in ancient Greece, Rome and India  ✓ Renaissance city Planning ✓ Industrial Revolution ✓ Integrate with ongoing HoA class on the above topics	Lecture
16	31.10.2023 Week 16	Planning Theories  ✓ Need and the scenario  ✓ Theories by Ebenezer Howard, Patrick Geddes, Soria Y Mata, Clarence Stein etc.  (by Form and/or character like Neighbourhood)	Submission of Assignment-II and Discussion
17	07.11.2023 Week 17	Planning Theories  ✓ Need and the scenario  ✓ Theories by Ebenezer Howard, Patrick Geddes, Soria Y Mata, Clarence Stein etc.  (by Form and/or character like Neighbourhood)	Lecture
18	14.11.2023 Week 18	Housing under Five Year Plans	Lecture
19	21.11.2023 Week 19	Summary and Feedback	Lecture

#### Tentative break-up of Internal Assessment Marks:

S.No.	Categories of Evaluation*	Marks
1	Assignment-I	10
2	Mid Semester Test	20
3	Assignment-II	20
	Total	50

<sup>\*</sup> The Marks allotted against each category are tentative. Categories of evaluation are only indicative and may increase or decrease.

#### Reference Books:

- 1. A.B. Gallion, S. Eisner. (1993) "The Urban Pattern".
- F. S. Hudson (1970) "Geography of Settlements" Macdonald and Evans Ltd. Estover.
   G. K. Bandopadhyaya (2000) "Text Book of Town Planning".
- Glenn H. Beyer (1958) "Housing: A factual analysis", The Macmillan Company, New York.
- M. Harris (1978) "Economic Development, Cities and Planning" Oxford University Press, Mumbai.
- Monto, L.S. Ganesh & K. Verghese (2005) "Sustainability and Human Settlements: Fundamental Issues, Modeling and Simulation", SAGE Publications Pvt. Ltd, New Delhi.
- N. Jayapalan (2002) "Urban Sociology", Atlantic Publishers & Distributors, New Delhi.
- P. K. Guha (1999) "Housing an Indian Perspective", New Central Book agency Pvt. Ltd.

Sd/-



## School of Planning and Architecture, Vijayawada

(An institution of National Importance under the Ministry of Education, Govt. of India) Survey No.4/4, ITI Road, Vijayawada-520008, Andhra Pradesh, India

#### **Department of Architecture**

Course: ARC316: Theory of Settlement Planning Class: III Year B. Arch V Sem A.Y. 2023-24

Instructor: Dr. Amitava Sarkar

Internal Assessment: 50
End Semester Theory Exam: 50

Contact Periods/ week: 03 periods (55 min each)Total Marks: 100Timings: As per Time-TableCredits: 3

Attendance: Min 75% Min. Passing Marks: As per Academic Ordinances for UG Courses

**Objective:** Course imparts Students an exposure of the historical evolution of urban settlements and connected development theories towards a clear understanding of the morphological dimensions of urban patterns and spaces. The course is intended to provide the students an overview and understanding of the land related theories and policy making in cities. It also helps in understanding of varied dimension related to housing demand –supply challenges and land-use planning.

Out Line of the Course: As per syllabus

#### **LECTURE PLAN**

WEEK	DATE	TOPIC OF CLASS LECTURE & DISCUSSION	DURATION/ ASSIGNMENTS / REMARKS
1	18-Jul-23	Evolution of settlements as pastures of human existence, factors influencing settlement consolidation. Origin and growth of settlements.	2 Lecture + 1 tutorial
2	25-Jul-23	Types of cities by virtue of formation, function and location; types of cities by scale of habitation. Factors influencing formation and consolidation of settlements.	2 Lecture + 1 tutorial
3	01-Aug-23	Problems of Indian Cities. Difference between Urban and Rural settlements.	2 Lecture + 1 tutorial
4	08-Aug-23	Basic elements of the city, Concepts of space, time, scale of cities; Town planning in ancient India medieval, renaissance, industrial and post, industrial cities. <b>Assignment 1</b>	2 Lecture + 1 tutorial
5	15-Aug-23	Holiday - Independence Day	(As per Academic Calender)
6	22-Aug-23	Comparative study of the origin and growth of settlements. Timeline of ancient civilisations; Principles of settlement planning in ancient civilisations in India, classical Greece and Rome.	2 Lecture + 1 tutorial
7	29-Aug-23	Planning theories by the Nineteenth centuryviz., Ebenezer Howard's Garden City Concept, Patrick Geddes' Folk-Work-Place theory, Soria Y Mata's Linear City, Concentric Zone Theory	2 Lecture + 1 tutorial
8	05-Sep-23	Sector Theory, Multiple Nuclei Theory; theories enunciated by Ludwig Hilberseimer, Raymond Unwin, Clarence Perry, Clarence Stein, Henry Wright, F.L. Wright etc.	2 Lecture + 1 tutorial
9	12-Sep-23	Mid-Semester Assessment	(As per Academic Calender)
10	19-Sep-23	Holiday - Ganesh Chaturthi	(As per Academic Calender)
11	26-Sep-23	Housing as a key vivid component of urban and rural settlements; housing need, demand, supply and density. Problems of housing - proliferation of slums and squatters in urban areas	2 Lecture + 1 tutorial
12	03-Oct-23	Causative factors and effects. Group Housing - URDPFI guidelines, relevant norms as per the National Building Code of India and as per Development Control Regulations.	2 Lecture + 1 tutorial
13	10-Oct-23	Social structure and its influence on spatial planning. Land use as a key determinant of spatial planning.	2 Lecture + 1 tutorial
14	17-Oct-23	Types of Land use, detailed description of constituents of different land uses. Assignment-2	2 Lecture + 1 tutorial
15	24-Oct-23	Holiday - Dussera Break	(As per Academic Calender)
16	31-Oct-23	Application of GIS in Town Planning - Demonstration in GIS Lab	2 Lecture + 1 tutorial

17	07-Nov-23	Application of GIS in Town Planning - Demonstration in GIS Lab	2 Lecture + 1 tutorial
18	14-Nov-23	Application of GIS in Town Planning - Demonstration in GIS Lab	2 Lecture + 1 tutorial
19	21-Nov-23	Assignment-2 presentation and discussion	

9	Outcome: Students completing this course will be able to:			
	Understand the social, economic and spatial dimensions at the national, regional and local levels as a premise in which an architectural product is likely to be placed.			
	2 Make appropriate choices for further studies in related domains of education.			

S. No.	Stages of Evaluation	Weightage
1	First stage: Internal Assessment –1	15
2	Second stage: Mid-Semester Assessment	20
3	Third stage: Internal Assessment –2	15
	Total	50

#### References:

- 1 A.B. Gallion, S. Eisner. (1993) "The Urban Pattern".
- F. S. Hudson (1970) "Geography of Settlements" Macdonald and Evans Ltd. Estover.
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- 8 P. K. Guha (1999) "Housing an Indian Perspective", New Central Book agency Pvt. Ltd., New Delhi.

Cource Instructors: sd/-(Dr. Amitava Sarkar)