

**ANNA UNIVERSITY, CHENNAI**  
**NON-AUTONOMOUS COLLEGES AFFILIATED TO ANNA UNIVERSITY**  
**M. ARCH. (REAL ESTATE DEVELOPMENT) FULL-TIME PROGRAMME**  
**REGULATIONS 2021**  
**CHOICE BASED CREDIT SYSTEM**  
**I TO IV SEMESTERS CURRICULA AND I SEMESTER SYLLABUS**  
**SEMESTER I**

S. NO.	COURSE CODE	COURSE TITLE	CATE- GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	RE4101	Introduction to Real Estate Development and Design	PCC	3	0	0	3	3
2.	RE4102	Urban Development Process and Policy	PCC	3	0	0	3	3
3.	RE4103	Re-Enterprising the City	PCC	3	0	0	3	3
4.	RE4104	Real Estate Finance and Investment	PCC	3	0	0	3	3
5.		Audit Course I*	AC	2	0	0	2	0
THEORY CUM STUDIO								
6.	MH4121	Building Information Modelling	PAEC	1	0	3	4	4
STUDIO								
7.	RE4111	Real Estate Development Studio- I	PCC	0	0	10	10	10
TOTAL				15	0	13	28	26

\* Audit Course is optional

**SEMESTER II**  
**(Prerequisite- Pass in Real Estate Development Studio- I)**

S. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	RM4251	Research Methodologies for Built Environment	RMC	3	0	0	3	3
2.	RE4201	Legal Frame Work for Real Estate	PCC	3	0	0	3	3
3.	RE4202	Housing and Land Dynamics	PCC	3	0	0	3	3
4.		Audit Course II*	AC	2	0	0	2	0
THEORY CUM STUDIO								
5.	MH4221	Geographical Information Systems for Built Environment	PAEC	1	0	3	4	4
STUDIO								
6.	RE4211	Real Estate Development Studio- II	PCC	0	0	10	10	10
TOTAL				12	0	13	25	23
PROFESSIONAL ELECTIVE								
7.		Professional Elective I	PEC	X	X	X	3	3
TOTAL							28	26

\* Audit Course is optional

**SEMESTER III**  
(Prerequisite- Pass in Real Estate Development Studio- II)

SL. NO.	COURSE CODE	COURSE TITLE	CATE- GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P/S		
THEORY								
1.	RE4301	Valuation and Arbitration	PAEC	3	0	0	3	3
2.	RE4302	Sustainability and Resilience in Real Estate	PCC	3	0	0	3	3
STUDIO								
3.	RE4311	Dissertation	PCC	0	0	4	4	4
4.	RE4312	Real Estate Development Studio- III	PCC	0	0	10	10	10
TOTAL				6	0	14	20	20
PROFESSIONAL ELECTIVE								
5.		Professional Elective II	PEC	X	X	X	3	3
6.		Professional Elective III	PEC	X	X	X	3	3
INTERNSHIP TRAINING								
7.	RE4313	Internship Training	PAEC	X	X	X	X	2
TOTAL							28	

**SEMESTER IV**  
(Prerequisite- Pass in Real Estate Development Studio- III)

SL. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P/S		
STUDIO								
1.	RE4411	Thesis Project	PCC	0	0	20	20	20
TOTAL				0	0	20	20	20
PROFESSIONAL ELECTIVE								
2.		Professional Elective IV	PEC	X	X	X	3	3
TOTAL							23	23

**Total No. of Credits: 103**

### PROFESSIONAL CORE COURSES (PCC)

SL. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P/S		
1.	RE4101	Introduction to Real estate Development and Design	PCC	3	0	0	0	3
2.	RE4102	Urban Development Process and Policy	PCC	3	0	0	0	3
3.	RE4103	Re – Enterprising the City	PCC	3	0	0	0	3
4.	RE4104	Real Estate Finance and Investment	PCC	3	0	0	3	3
5.	RE4111	Real Estate Development Studio - I	PCC	10	0	0	10	10
6.	RM4251	Research Methodologies for Built Environment	RMC	3	0	0	0	3
7.	RE4201	Legal Frame Work for Real Estate	PCC	3	0	0	3	3
8.	RE4202	Housing and Land Dynamics	PCC	3	0	0	0	3
9.	RE4211	Real Estate Development Studio-II	PCC	10	0	0	10	10
10.	RE4302	Sustainability and Resilience in Real Estate	PCC	3	0	0	3	3
11.	RE4311	Dissertation	PCC	0	0	4	4	4
12.	RE4312	Real Estate development Studio- III	PCC	10	0	0	10	10
13.	RE4411	Thesis Project	PCC	0	0	20	20	20

### PROFESSIONAL ELECTIVE COURSES (PEC)

#### SEMESTER II, ELECTIVE I

SL. NO.	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P/S		
1.	RE4001	Critical Thinking Skills and Development	PEC	3	0	0	3	3
2.	RE4002	Urban Infrastructure	PEC	3	0	0	3	3
3.	RE4003	Landscape Ecology, Planning and Management	PEC	3	0	0	3	3
4.	MH4073	Soft Skills	PEC	2	0	1	3	3

### SEMESTER III, ELECTIVE II & III

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P/S		
1.	RE4004	Economics and Social Development	PEC	3	0	0	3	3
2.	RE4005	Contract Law and Regulation	PEC	3	0	0	3	3
3.	RE4006	Development Impact Assessment	PEC	3	0	0	3	3
4.	MH4072	Performance Evaluation of Buildings	PEC	2	0	1	3	3
5.	RE4007	Construction Project Management	PEC	2	0	1	3	3
6.	RE4008	Marketing Techniques and Strategies	PEC	3	0	0	3	3
7.	MH4074	Psychology of Learning and Development	PEC	3	0	0	3	3

### SEMESTER IV, ELECTIVE IV

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P/S		
1.	RE4009	Uncertainty and Recovery Mechanism	PEC	3	0	0	3	3
2.	RE4010	Global Real Estate	PEC	3	0	0	3	3
3.	RE4011	Facility Management	PEC	3	0	0	3	3
4.	MH4075	Theory of Architectural Education	PEC	3	0	0	3	3

### PROFESSIONAL ABILITY ENHANCEMENT COURES (PAEC)

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P/S		
1.	MH4121	Building Information Modelling	PAEC	1	0	3	4	4
2.	MH4221	Geographical Information Systems for Built Environment	PAEC	1	0	3	4	4
3.	RE4301	Valuation and Arbitration	PAEC	3	0	0	0	3
4.	RE4313	Internship Training	PAEC	X	X	X	X	2

**AUDIT COURSES (AC)**  
Registration for any of these courses is optional to students

SL. NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			CREDITS	SEMESTER
			Lecture	Tutorial	Practical		
1.	AX4091	English for Research Paper Writing	2	0	0	0	1/2
2.	AX4092	Disaster Management	2	0	0	0	
3.	AX4093	Constitution of India	2	0	0	0	
4.	AX4094	நற்றமிழ் இலக்கியம்	2	0	0	0	



## **OBJECTIVES**

- To enable understanding of land as a resource and a commodity.
- To provide adequate inputs to help understand the whole development process as a seamless activity and be aware of the tactical aspects of the entire process of real estate development and design.
- To equip students with the knowledge of various layout planning parameters and approval process involved.
- To encourage students to explore current trends in asset building and property development.
- To enable an appreciation of the role of team work to make a successful project.

## **UNIT I      CONCEPTS**

**6**

Fundamental Concepts- Physical/Economic Characteristics, Types of Real Estate, Techniques & Sequential events in Real Estate Development Process- surveys and data rationalization; Development planning – preparation and interpretation.

## **UNIT II      PRE PROJECT-STUDIES AND EVENTS**

**6**

Site-Inventory, Evaluation & Feasibility Studies, Understanding & Analysis of Trends and Market Trajectories (Micro and Macro market), Factors affecting real estate demand, Development Team assembly.

## **UNIT III      LAYOUT/DEVELOPMENT PLANNING & APPROVAL PROCESS**

**9**

Planning objectives, Layout Planning Parameters-Plot, Road Network, Infrastructure and open spaces, Efficiency of Layout/Development, Master plan & Detailed Development Plan. Front end clearances and Approvals from various authorities.

## **UNIT IV      CURRENT TRENDS IN REAL ESTATE**

**12**

SEZ, SPV, Joint ventures, Franchisee systems, Types & Parameters, Smart city concepts, Green building, Certifications and Rating for Buildings/Townships (IGBC, CARE, CRISIL, ICRA)

## **UNIT V      HANDING OVER OF ASSETS**

**12**

Business Communication Tools required for presenting the project, in house sales promotion, public relations, transfer of completed project, Setting of Project Management Office, Estate Management

**TOTAL: 45 PERIODS**

## **OUTCOMES**

- Understanding of land as a resource and public domain and its endless opportunities for inclusive growth.
- Skill in applying the various principles and techniques taught in the subject in real estate design and development process.
- Understanding of principles in transactions relating to the allied operations of real estate.
- Knowledge about the recent trends and innovations in real estate.
- Knowledge in the transfer of completed projects and communication tools required for presenting the project.

## **REFERENCES**

1. Fillmore W Galaty, "Modern Real estate practice" (2002); Dearborn Trade Publishing, NewYork, U.S.A.
2. Gerald R Cortesi, "Mastering Real estate principles" (2001); Dearborn Trade Publishing, NewYork, U.S.A.

3. Mike .E. Miles, "Real estate development – Principles & Process 3<sup>rd</sup> edition, (2000); UrbanLand Institute, ULI – Washington DC
4. Richard B Peiser & Anne B. Frej, "Professional real estate development" – The ULI guide to the business – (2003), Urban Land Institute U.S.A.
5. Tanya Davis, "Real estate developer's handbook", (2007), Atlantic pub company, Ocala, USA.
6. Prasad Reddy, G., and P. Mohan Reddy. "INDIAN REAL ESTATE INDUSTRY: Issues And Initiatives." CLEAR International Journal of Research in Commerce & Management 6.7 (2015)
7. Dr.KR.Thooyavan. "Human Settlements – A planning guide for beginners", (2005), Ma Publications

**RE4102**

**URBAN DEVELOPMENT PROCESS AND POLICY**

**L T P/S C**  
**3 0 0 3**

**OBJECTIVES**

- To inform about the evolution, form and pattern of urban growth and its impact on the city.
- To enable understanding of the related planning theories concerned with urban growth and the factors affecting decision making in land use.
- To enable understanding of the implications and effects of urbanisation and ways to sustainably manage urban issues.
- To introduce various regulatory regimes, policies on land and development present in the country.
- To impart a broader knowledge of all aspects of public-private partnerships and their short/long term effects on real estate.

**UNIT I UNDERSTANDING URBAN GROWTH** **9**  
Basics of Urban Planning- Historic Overview of City Planning, Dynamic forces driving Urban growth – Urban spatial configuration. Regional influences on settlement hierarchy.

**UNIT II LOCATIONAL DETERMINANTS** **6**  
Land Economics-Land use Structure & Planning-(Permissible & Non Permissible Uses) – Community & Neighbourhood Dynamics, Neighbourhood Unit Theories - Urban Land rent & Location Theories

**UNIT III QUALITY OF DEVELOPMENT** **10**  
Urban Quality – Urban Infrastructure, degeneration – Urban Renewal & regeneration – Self Sustaining and shared facilities, Sustainable development in Peri Urban areas

**UNIT IV POLICIES ON URBAN DEVELOPMENT** **10**  
Public policies on land & real estate, Government Policies – on public & private housing – Redevelopment & Rehabilitation, Urban Fiscal Policies- Govt. Finance, Budgeting, Property Taxation, Impact of Govt. Regulations

**UNIT V PUBLIC PRIVATE PARTICIPATION** **10**  
System driven and informal participation, various models of public participation, BOT, BOOT, BOO, ROOT, DBOT, DBFO, participatory plan formulation, resource mobilization, maintenance and management.

**TOTAL: 45 PERIODS**



## OUTCOMES

- Knowledge about the dynamics of urban growth and its impact .
- Knowledge of tools to analyse planning decisions and regulations and their implications for society.
- An understanding of urbanisation with an emphasis on responsible urban growth
- Knowledge about the different policies framed by the National & State Government and their impact urban development and real estate pricing.
- Understanding of the challenges of PPP and how it assists to meet the need and financing gap.

## REFERENCES:

1. David T Betto, "The Voluntary city Markets, Communities & Urban Planning" (2006)
2. Frieden, Bernard & Lyne Sagalyn, "Enterpreneurial cities & marverik developers, deal amking,getting & spending", (1990) MIT. Press, U.S.A
3. John Ratcliffe; "Urban Planning & Real estate development, (2004); Taylor & Francis pub. U.K.
4. Jonathan Barnett; "Urban design as a public policy", (1974), Mc Graw hill book co; New York.
5. Robert Freestone; "Urban Planning in a changing world – the 20<sup>th</sup> century experience 2000;Taylor & Francis pub. U.K
6. Cities and Public Policy: An Urban Agenda for India by Prasanna K Moorthy (2014)

RE4103

RE-ENTERPRISING THE CITY

L T P/S C  
3 0 0 3

## OBJECTIVES

- To provide inputs to understand the dynamics of urban design as an integral part of real estate development
- To impress upon the professionals to look at Real Estate from a broader perspective of urban place/space making.
- To demonstrate the value addition to property development by adhering to urban aesthetics as a leverage for price mechanism.
- To emphasise the need for sustainability of the existing morphology through adaptive reuse to provide alternative options in urban renewal with reference to changing market dynamics
- To enable exploration of City/ Place branding as a strategy to strengthen a community's sense of place.

## UNIT I INTRODUCTION TO URBAN DESIGN THEORY

6

City as a three – dimensional entity, study of volumes & open spaces, a brief historic review of the development of the urban design discipline and principles. Land as a commodity and raw material

## UNIT II ELEMENTS OF URBAN DESIGN

7

Urban form as determined by the inter-play of masses, voids, building typology, scale, density, height, bulk, organization of spaces & their articulation, public spaces Image of the city & its components.

## UNIT III DETERMINANTS OF URBAN FORMS & FUNCTION

10

Activity & Morphology size & structure of cities, networks – TOD Models, open spaces, public realm and place making, case studies of urban design characteristics of cities in India & abroad, issues for public intervention and participation.



#### **UNIT IV    RETROFITTING OF BUILDINGS / PROPERTIES AND ADAPTIVE REUSE**

**12**

Methods & mechanisms – Urban Renewal – Rehabilitation, Redevelopment & Conservation – Adaptive Re-use, retrofitting, Facadism, Commodification – Context and Case Studies -Indian and abroad

#### **UNIT V    CITY AS AN ENTERPRISE**

**10**

Contemporary Approaches/Theories to City Building, Smart cities, Sustainable Cities & Post Pandemic Cities, Brownfield projects, mixed use strategies, Entrepreneurship and City Branding. Form based codes, (Case examples in Indian and Western context). Legal framework, policies & charters

**TOTAL: 45 PERIODS**

#### **OUTCOMES**

- Ability to incorporate principles of Urban design in real estate strategies
- Understanding of the role and interface of Urban Design in Real Estate development.
- Understanding of the determinants of Urban form and function.
- Sensitivity towards the significance of adaptive reuse and retrofitting with its implications in real estate development.
- Understanding of how urban development is aligned with City branding efforts and practice.

#### **REFERENCES**

1. Cliff Moughtin, "UD-Street & Square," (2003), Architectural Press.
2. Edmund Bacon, "Design of Cities (1976), revised edition, Viking Penguin Inc, USA
3. Geoffrey Broadbent, "Emerging concepts in Urban Space Design-(1995), Jayker & Fravels.
4. Jon Lang, "Urban design" – a typology pf procedures & products 2005, Glsevier, North America.
5. Edited by Tim Dixon, Malcolm Eames, Miriam Hunt and Simon Lannon, "Urban Retrofitting for Sustainability" 2014, Routeledge, New York.
6. Carmona, Matthew. Public places urban spaces: The dimensions of urban design. Routledge, 2021.
7. 2. Forrest, Ray, Sin Yee Koh, and Bart Wissink, eds. Cities and the super-rich: Real estate, elite practices and urban political economies. Springer, 2017.

PROGRESS THROUGH KNOWLEDGE

**RE4104**

**REAL ESTATE FINANCE AND INVESTMENT**

**L T P/S C**  
**3 0 0 3**

#### **OBJECTIVES**

- To introduce the principles of investment relating to real estate including the basic principles underlying the appraisal of investments
- To enable understanding of the influences of international modes of decision making.
- To enable understanding of risks in real estate as a tool in mortgaging and investment performance.
- To facilitate acquiring of basic skills and intuition needed to evaluate a variety of real estate project costs & investments.
- To enable understanding of the various aspects of financial planning and analysis and its impact on real estate investment.

**UNIT I FUNDAMENTAL CONCEPTS****8**

Principles, Analytical methods and tools useful for making investment and financial decisions regarding real estate properties (Commercial, Industrial, Residential), Real estate Investment Concept of Time Value of Money, PV (Present Value), FV (Future Value), discounting FV to PV by Discounting Rate. Investment Decision making using financial tools like, Pay-Back -Period, Rate of Return (%) and IRR. and Bench Marking.

**UNIT II CONVENTIONAL AND NON-CONVENTIONAL FINANCE****8**

Real estate financial decision making (pension funds, banks, life insurance companies, investment trusts, joint venture, FDI) Crowd Funding, and Joint Development debt financing by Housing Finance Companies, Govt. Financial Policies (State & Central)-Impact on Real Estate

**UNIT III RISK ANALYSIS AND SECURITIZATION****7**

Various risk in real estate investments and its analysis, Primary and Secondary Markets, Concept of securitization and structured financing in India, including mortgage contract

**UNIT IV FINANCIAL TOOLS****12**

Real Estate Project Cost estimates, preparing and analysis of Project Matrix of Time-Activity Table, Project Cash flow statement, Debt Service Coverage Ratio, Debt-Equity Ratio, Sensitivity Analysis relating to the sensitivity of Market Demand and supply and understanding Project appraisal and of Project Financial viability. Techniques of Financial Appraisal.

**UNIT V CASE STUDIES OF FINANCING OF PROJECTS****10**

Financial Viability, Cost of Capital Operational cost, Financial Planning and Analysis, Estimating Various Cost, Direct and in-direct Cost. Fixed cost, Variable cost, BEP (Break Even Point, Concept of profit and Differential pricing of units, Cross subsidies, Income tax concessions or Tax holidays, Different business Entities and understanding the fundamentals of Income/Expenditure Statement, Balance Sheets, Ratio Analysis, Capital and Reserves, The role of Rating Agencies and Long term and short term market borrowings with fixed and variable Interest rate

**TOTAL: 45 PERIODS****OUTCOMES**

- Ability to undertake feasibility and viability appraisals of real estate investments.
- Ability to practice the principles, analytical methods and tools are useful for making investment and finance decisions.
- Knowledge on development of real estate securitization and structured financing including mortgage contract helps to calculate the various durations to evaluate risk sharing in Real Estate Development
- Awareness of real estate financial modelling, capable of analysing real estate markets and adept at assessing risk.
- Sophisticated and agile understanding of the financial tools in real estate investing landscape

**REFERENCES**

1. David Falk; "The fundamentals of Real estate finance", (2005). USA
2. Ira Nachem, "The complete guide to "Financing real estate development" 2007- Mc Graw hill companies, USA.
3. Nathan. S. Collier, "Construction finding – the process of RE development, Appraisal & finance (2007); John Wiley & Sons Inc; New Jersey.
4. Terrence M Clauritie, "Real estate finance: Theory & practice", (2005), Prentice Hall, U.S.A
5. GE Greer, "Investment analysis for R E decision", (2003), Dearborn R E education.
6. Gaurav Jain, "Real Estate Investment & Financial Analysis: The Four Essentials of Building Wealth with Realty" (2017)
7. Prasanth Das and Divyansh Sarma "Real Estate Finance in India", (2013)

8. Roger Staiger, "Foundations of Real Estate Financial Modelling"- (2018) Routledge; 2nd edition (2018)
9. "Urban Infrastructure Finance and Management"- by K.Wellman (author), M.Spiller Wiley-Blackwell; 1st edition (2012)

**MH4121**

**BUILDING INFORMATION MODELLING**

**L T P/S C**

**1 0 3 4**

**OBJECTIVES**

- To equip students with skills and information to build comprehensive Building Information Models (BIM) for stage wise project analysis.
- To help students work and iterate on parameters that impact design options
- To sensitise students, and enhance their potential at energy modelling.
- To let student's review and optimise the complex details in the design solution so as to avoid construction risks.
- To equip students with skills on cost optimisation with design inputs using appropriate Digital software and Media.

**UNIT I INTRODUCTION TO THE FUNDAMENTALS**

**10**

Key concepts of BIM - reading and manipulating the software Interface - navigating within views - selection methods - the importance of levels and grids- creating walls, doors, windows, and components - working with essential modification commands and load family. Creating floors, ceilings, and stairs - working with type and instance parameters - importing CAD drawings - understanding the project browser and type properties palettes - adding sheets - inserting views onto sheets - adding dimensions and text to the mode and plotting

**UNIT II ADVANCED MODELING –FAMILY TYPES AND TOPOSURFACE MODELLING 15**

Creating curtain walls, schedules, details, a custom family, and family types - "flex" a family with family types and work with reference planes - creating rooms and an area plan - tag components - customize existing wall styles. Create and edit a topo surface, add site and parking components - draw label contours - work with phasing - understand groups and links - work with stacked walls - and learn the basics of rendering and create a project template.

**UNIT III RENDERING AND MATERIAL APPLICATION**

**15**

Choosing material for buildings- Creating custom walls, floors, and roofs - keynoting - working with mass elements - enhancing rendering with lighting - producing customized materials - Using sun and shadow settings - Walkthrough technique - adding decals - working with design options and work sets - and calculating energy analysis - managing revisions

**UNIT IV BIM FOR BUILDING ENERGY SIMULATION**

**15**

Energy simulation for conceptual BIM models using massing- Detailed modeling using design elements- Rapid energy modeling and simulation - Conceptual Energy Analysis features to simulate performance to produce energy consumption, carbon neutrality and renewable potential reports.

## **UNIT V BIM FOR COST ESTIMATING, PROJECT PHASING AND ADMINISTRATION 5**

Introduction and theoretical information on the following topics- Model based Cost Estimating - Challenges in cost estimating with BIM- Cad geometrics vs BIM element description- Visual data models - Material substitutions and value engineering- detailed estimates and take off sheets- XML and automated cost estimate- project phasing and management- 4D modeling -BIM for project lifecycles.

**TOTAL: 60 PERIODS**

### **OUTCOMES**

- Knowledge on the implementation of BIM concepts throughout the lifecycle of a building, from planning and design, to construction and operations.
- Knowledge of optimisation, working on options and alternatives that could result in efficiency.
- Ability to use BIM for analysing energy performance and simulating details.
- Knowledge that can synchronise the real time project through simulation.
- Understanding of the complex details of generating detailed estimates that add to value engineering.

### **REFERENCE**

1. Eastman, C.; Teicholz, P.; Sacks, R.; Liston, K. (2008) BIM Handbook: A Guide to Building Information Modeling for Owners, Managers, Designers, Engineers and Contractors. New York: Wiley.
2. Ray Crotty;(2011) The Impact of Building Information Modelling: Transforming Construction. Spons Architecture Price Book.

[www.binils.com](http://www.binils.com)

**RE4111**

**REAL ESTATE DEVELOPMENT STUDIO – I**

**L T P/S C  
0 0 10 10**

### **OBJECTIVES**

- To enable understanding of synergies between how one specializes development and how real estate dynamics shape and influence land development.
- To facilitate application of tools, instruments and strategies for design thinking and understand the mechanisms of Socio-Economic and Cultural Contexts, Consumer behavioural Patterns/Lifestyles that shape and impact real estate development process.
- To impart skills to visualize and communicate concepts about a site and enable the assessment of a project for its development potential.
- To create understanding of the myriad of factors that influence a project and be sensitized to the links between plotted development and sustainable environmental management.
- To create enhanced understanding of the intricate relationships between the development practices and the influence of financial market .

### **CONTENT**

Trend Analysis: Analysis of societal needs /current market trends will be the starting point of this studio to sensitize students to issues of land and corporate development. The students will incorporate developmental planning parameters by which the various stakeholders-architects, planners, urban designers, developers/investors, buyers and users can conceptualize various frameworks for real estate development.

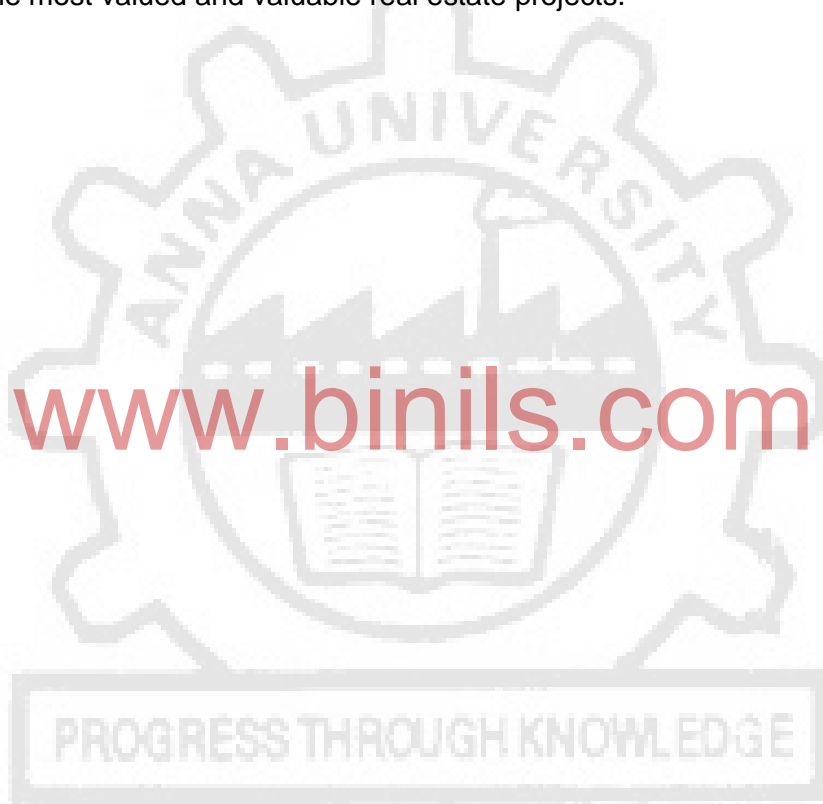
This will culminate in a project on Residential Plotted Land Development supported with Commercial, Public-Semi Public, Open space/Recreational land uses.

The deliverables for the Studio include—Site Analysis, Demand assessment, Product mix, Zoning & circulations, Housing Typology, Layout plan, Infrastructure and Landscape plans. Financial outlays profiling Marketing Plan, Project Costing, Cash flow, ROI, IRR and Feasibility Analysis Report.

**TOTAL: 150 PERIODS**

### **OUTCOMES**

- Understanding of how good and inclusive design adds value to residential plotted development projects.
- Ability to investigate how responsive development is holding the key to our social, economic, and culturally equitable future.
- Knowledge of tools and skills to use real estate development to solve the challenges and positively impact communities that they design and build.
- Understanding of real estate development requires excellence in urban design, planning, sustainability and financial outline.
- An awareness of the iterative process of problem finding, solutions is fundamental to producing the most valued and valuable real estate projects.



## AUDIT COURSES

**AX4091**

**ENGLISH FOR RESEARCH PAPER WRITING**

**L T P C**

**2 0 0 0**

### **OBJECTIVES**

- Teach how to improve writing skills and level of readability
- Tell about what to write in each section
- Summarize the skills needed when writing a Title
- Infer the skills needed when writing the Conclusion
- Ensure the quality of paper at very first-time submission

### **UNIT I INTRODUCTION TO RESEARCH PAPER WRITING**

**6**

Planning and Preparation, Word Order, Breaking up long sentences, Structuring Paragraphs and Sentences, Being Concise and Removing Redundancy, Avoiding Ambiguity and Vagueness

### **UNIT II PRESENTATION SKILLS**

**6**

Clarifying Who Did What, Highlighting Your Findings, Hedging and Criticizing, Paraphrasing and Plagiarism, Sections of a Paper, Abstracts, Introduction

### **UNIT III TITLE WRITING SKILLS**

**6**

Key skills are needed when writing a Title, key skills are needed when writing an Abstract, key skills are needed when writing an Introduction, skills needed when writing a Review of the Literature, Methods, Results, Discussion, Conclusions, The Final Check

### **UNIT IV RESULT WRITING SKILLS**

**6**

Skills are needed when writing the Methods, skills needed when writing the Results, skills are needed when writing the Discussion, skills are needed when writing the Conclusions

### **UNIT V VERIFICATION SKILLS**

**6**

Useful phrases, checking Plagiarism, how to ensure paper is as good as it could possibly be the first-time submission

**TOTAL: 30 PERIODS**

### **OUTCOMES**

CO1 – Understand that how to improve your writing skills and level of readability

CO2 – Learn about what to write in each section

CO3 – Understand the skills needed when writing a Title

CO4 – Understand the skills needed when writing the Conclusion

CO5 – Ensure the good quality of paper at very first-time submission

### **REFERENCES**

1. Adrian Wallwork , English for Writing Research Papers, Springer New York Dordrecht Heidelberg London, 2011
2. Day R How to Write and Publish a Scientific Paper, Cambridge University Press 2006
3. Goldbort R Writing for Science, Yale University Press (available on Google Books) 2006
4. Highman N, Handbook of Writing for the Mathematical Sciences, SIAM. Highman's book 1998.



**OBJECTIVES**

- Summarize basics of disaster
- Explain a critical understanding of key concepts in disaster risk reduction and humanitarian response.
- Illustrate disaster risk reduction and humanitarian response policy and practice from multiple perspectives.
- Describe an understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations.
- Develop the strengths and weaknesses of disaster management approaches

**UNIT I INTRODUCTION****6**

Disaster: Definition, Factors and Significance; Difference between Hazard And Disaster; Natural and Manmade Disasters: Difference, Nature, Types and Magnitude.

**UNIT II REPERCUSSIONS OF DISASTERS AND HAZARDS****6**

Economic Damage, Loss of Human and Animal Life, Destruction Of Ecosystem. Natural Disasters: Earthquakes, Volcanisms, Cyclones, Tsunamis, Floods, Droughts And Famines, Landslides And Avalanches, Man-made disaster: Nuclear Reactor Meltdown, Industrial Accidents, Oil Slicks And Spills, Outbreaks Of Disease And Epidemics, War And Conflicts.

**UNIT III DISASTER PRONE AREAS IN INDIA****6**

Study of Seismic Zones; Areas Prone To Floods and Droughts, Landslides And Avalanches; Areas Prone To Cyclonic and Coastal Hazards with Special Reference To Tsunami; Post-Disaster Diseases and Epidemics

**UNIT IV DISASTER PREPAREDNESS AND MANAGEMENT****6**

Preparedness: Monitoring Of Phenomena Triggering a Disaster or Hazard; Evaluation of Risk: Application of Remote Sensing, Data from Meteorological And Other Agencies, Media Reports: Governmental and Community Preparedness.

**UNIT V RISK ASSESSMENT****6**

Disaster Risk: Concept and Elements, Disaster Risk Reduction, Global and National Disaster Risk Situation. Techniques of Risk Assessment, Global Co-Operation in Risk Assessment and Warning, People's Participation in Risk Assessment. Strategies for Survival

**TOTAL : 30 PERIODS****OUTCOMES**

- CO1: Ability to summarize basics of disaster
- CO2: Ability to explain a critical understanding of key concepts in disaster risk reduction and humanitarian response.
- CO3: Ability to illustrate disaster risk reduction and humanitarian response policy and practice from multiple perspectives.
- CO4: Ability to describe an understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations.
- CO5: Ability to develop the strengths and weaknesses of disaster management approaches

**REFERENCES**

1. Goel S. L., Disaster Administration And Management Text And Case Studies", Deep & Deep Publication Pvt. Ltd., New Delhi, 2009.
2. NishithaRaj, Singh AK, "Disaster Management in India: Perspectives, issues and strategies "NewRoyal book Company, 2007.
3. Sahni, PardeepEt.Al. , " Disaster Mitigation Experiences And Reflections", Prentice Hall OfIndia, New Delhi, 2001.



**OBJECTIVES**

Students will be able to:

- Understand the premises informing the twin themes of liberty and freedom from a civil rights perspective.
- To address the growth of Indian opinion regarding modern Indian intellectuals' constitutional
- Role and entitlement to civil and economic rights as well as the emergence nation hood in the early years of Indian nationalism.
- To address the role of socialism in India after the commencement of the Bolshevik Revolution in 1917 and its impact on the initial drafting of the Indian Constitution.

**UNIT I HISTORY OF MAKING OF THE INDIAN CONSTITUTION**

History, Drafting Committee, (Composition & Working)

**UNIT II PHILOSOPHY OF THE INDIAN CONSTITUTION**

Preamble, Salient Features

**UNIT III CONTOURS OF CONSTITUTIONAL RIGHTS AND DUTIES**

Fundamental Rights, Right to Equality, Right to Freedom, Right against Exploitation, Right to Freedom of Religion, Cultural and Educational Rights, Right to Constitutional Remedies, Directive Principles of State Policy, Fundamental Duties.

**UNIT IV ORGANS OF GOVERNANCE**

Parliament, Composition, Qualifications and Disqualifications, Powers and Functions, Executive, President, Governor, Council of Ministers, Judiciary, Appointment and Transfer of Judges, Qualifications, Powers and Functions.

**UNIT V LOCAL ADMINISTRATION**

District's Administration head: Role and Importance, Municipalities: Introduction, Mayor and role of Elected Representative, CEO, Municipal Corporation. Panchayati raj: Introduction, Panchayat. Elected officials and their roles, CEO Zila Panchayat: Position and role. Block level: Organizational Hierarchy(Different departments), Village level: Role of Elected and Appointed officials, Importance of grass root democracy.

**UNIT VI ELECTION COMMISSION**

Election Commission: Role and Functioning. Chief Election Commissioner and Election Commissioners - Institute and Bodies for the welfare of SC/ST/OBC and women.

**TOTAL: 30 PERIODS**

**OUTCOMES**

Students will be able to:

- Discuss the growth of the demand for civil rights in India for the bulk of Indians before the arrival of Gandhi in Indian politics.
- Discuss the intellectual origins of the framework of argument that informed the conceptualization of social reforms leading to revolution in India.
- Discuss the circumstances surrounding the foundation of the Congress Socialist Party[CSP] under the leadership of Jawaharlal Nehru and the eventual failure of the proposal of direct elections through adult suffrage in the Indian Constitution.
- Discuss the passage of the Hindu Code Bill of 1956.

**SUGGESTED READING**

1. The Constitution of India, 1950(Bare Act), Government Publication.
2. Dr.S.N.Basu, Dr.B. R.Ambedkar framing of Indian Constitution, 1st Edition, 2015.
3. M.P. Jain, Indian Constitution Law, 7th Edn., Lexis Nexis, 2014.
4. D.D. Basu, Introduction to the Constitution of India, Lexis Nexis, 2015.

<b>UNIT I</b>	<b>சங்க இலக்கியம்</b>	<b>6</b>
	1. தமிழின் துவக்க நூல் தொல்காப்பியம் - எழுத்து, சொல், பொருள் 2. அகநானூறு (82) - இயற்கை இன்னிசை அரங்கம் 3. குறிஞ்சிப் பாட்டின் மலர்க்காட்சி 4. புறநானூறு (95,195) - போரை நிறுத்திய ஒளவையார்	
<b>UNIT II</b>	<b>அறநெறித் தமிழ்</b>	<b>6</b>
	1. அறநெறி வகுத்த திருவள்ளுவர் - அறம் வலியுறுத்தல், அன்புடைமை, ஒப்புறவு அறிதல், ஈகை, புகழ் 2. பிற அறநூல்கள் - இலக்கிய மருந்து - ஏலாதி, சிறுபஞ்சமூலம், திரிகடுகம், ஆசாரக்கோவை (தூய்மையை வலியுறுத்தும் நூல்)	
<b>UNIT III</b>	<b>இரட்டைக் காப்பியங்கள்</b>	<b>6</b>
	1. கண்ணகியின் புரட்சி - சிலப்பதிகார வழக்குரை காதை சமூகசேவை இலக்கியம் மணிமேகலை - சிறைக்கோட்டம் அறக்கோட்டமாகிய காதை	
<b>UNIT IV</b>	<b>அருள்நெறித் தமிழ்</b>	<b>6</b>
	1. சிறுபாணாற்றுப்படை - பாரி முல்லைக்குத் தேர் கொடுத்தது, பேகன் மயிலுக்குப் போர்வை கொடுத்தது, அதியமான் ஒளவைக்கு நெல்லிக்கனி கொடுத்தது, அரசர் பண்புகள் 2. நற்றிணை அன்னைக்குரிய புன்னை சிறப்பு 3. திருமந்திரம் (617, 618) - இயமம் நியமம் விதிகள் 4. தர்மச்சாலையை நிறுவிய வள்ளலார் 5. புறநானூறு - சிறுவனே வள்ளலானான் 6. அகநானூறு (4) - வண்டு நற்றிணை (11) - நண்டு கலித்தொகை (11) - யானை, புறா ஐந்திணை 50 (27) - மான் ஆகியவை பற்றிய செய்திகள்	

1. உரைநடைத் தமிழ்,  
- தமிழின் முதல் புதினம்,  
- தமிழின் முதல் சிறுகதை,  
- கட்டுரை இலக்கியம்,  
- பயண இலக்கியம்,  
- நாடகம்,
2. நாட்டு விடுதலை போராட்டமும் தமிழ் இலக்கியமும்,
3. சமுதாய விடுதலையும் தமிழ் இலக்கியமும்,
4. பெண் விடுதலையும் விளிம்பு நிலையினரின் மேம்பாட்டில் தமிழ் இலக்கியமும்,
5. அறிவியல் தமிழ்,
6. இணையத்தில் தமிழ்,
7. சுற்றுச்சூழல் மேம்பாட்டில் தமிழ் இலக்கியம்.

**TOTAL : 30 PERIODS**

**தமிழ் இலக்கிய வெளியீடுகள் / புத்தகங்கள்**

1. தமிழ் இணைய கல்விக்கழகம் (Tamil Virtual University)- [www.tamilvu.org](http://www.tamilvu.org)
2. தமிழ் விக்கிப்பீடியா (Tamil Wikipedia)-<https://ta.wikipedia.org>
3. தர்மபுர ஆதின வெளியீடு
4. வாழ்வியல் களஞ்சியம் - தமிழ்ப் பல்கலைக்கழகம், தஞ்சாவூர்
5. தமிழ்கலைக் களஞ்சியம் - தமிழ் வளர்ச்சித் துறை (thamilvalarchithurai.com)
6. அறிவியல் களஞ்சியம் - தமிழ்ப் பல்கலைக்கழகம், தஞ்சாவூர்

