

SVKM'S NMIMS
Mukesh Patel School of Technology Management and Engineering

Program : PGDM (Real Estate Construction and Management)				Trimester : I	
Course : Urban Development				Code : PDREM01001	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
3	-	-	3	Scaled to 70 marks	Scaled to 30 marks

Objectives:

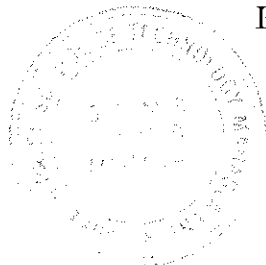
- To study the urbanization and policies for urban development.
- To understand needs of urban infrastructure.
- To study urban renewal and need of smart cities.

Outcomes : After successful completion of this course, students be able to

- Understand different elements of urban planning .
- Analyze the importance of urban planning and evaluate its impact on real estate development

Detailed Syllabus

Unit	Topics	Duration (Hr)
1.	Introduction: Urbanization with reference to growth of cities, pattern, growth its trends, causes and prospects of urbanization, cost of urbanization, growth of urban population, resources of urban development, spatial pattern of urbanization, problems of metropolitan cities in India policy issues and their need, trends and projections for urbanization.	03
2.	Fundamental of Urban Science & Engineering: Organization of Urban areas (Definitions, occupation, pattern, types of cities, such as industrial, administrative, religious etc.), Urban services like hospital, waste management centres etc.	05
3.	Urbanization of Cities, Suburbs, Region and Hinterland: Plans for cities and suburban areas, metropolitan regions, role of peripheral region in urban development, concept of hinterland, small towns, tributaries/ twin cities of metropolitan cities.	05
4.	Management Techniques for Urban Systems: Overview of urban systems & issues, urban systems and global environment climate and urban system mitigation and adoption of	05



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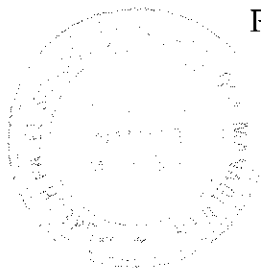
	strategies and techniques. Economic instruments in urban systems and Ecosystem Services.	
5.	Notifications: CRZ coastal and marine areas, Coastal management zones, set back line. Norms pertaining to civil aviation	03
6.	Connectivity and Conversion: Satellite cities, cities of cultural / business / tourism attraction, between cities and towns, Cities getting converted into regions and towns getting converted into cities. Express ways and freight corridors, Special projects like Golden Quadrilateral, Hub airport, Impact urban development.	03
7.	Smart Buildings and Cities: Need of smart cities and townships concept, few smart technologies of deployable for efficient civic services. Urban renewal through smart city concept. Advanced communications systems, metro rail systems, traffic management systems, smart meters, solid waste management, GIS to manage property tax, online quality monitoring, IT initiatives. Case studies of few smart cities – Kochi smart city, GIFT, Lavasa, etc.	06
	Total	30

Text Books:

- Nath V and Agarwal S.K ,(2007) “Urbanization, Urban Development & Metropolitan Cities in India” Concept Publisher. New Delhi.
- T. J Rho, J.H & Suh S (1989) Integrated Urban systems Modeling Theory and Applications: Springer Netherlands.

Reference Books:

- Handbook of Research Methods & Applications in Urban Economies, 2013 edited by Peter Karl, Jaime Sobrino, Edward Elgar Publishing Ltd, UK
- Henak K(2008): Urban Environmental and Technolgy: Springer Verlag. ISBN 4431783970,9784431783978
- Chambell, H.E &Corley E.A (2012), Urban Environmental Policy Analysis M.E. Sharpe Incorporated.
- Urban Update, (Setting the agenda for Tomorrow’s cities) monthly magazine by All India Institute of Local Self Government.
- D C rules of MCGM (2012)
- INSIGHT, the Global infrastructure magazine.



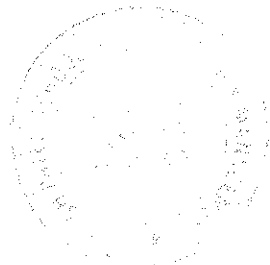
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- Maharashtra Redefining Urban Growth by KPMG (kpmg.com/in)

Internal Continuous Assessment :

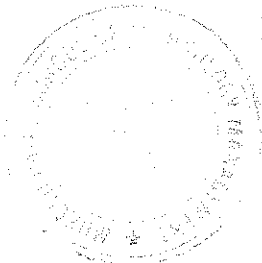
- One class test based on the above syllabus.
- Quiz, viva, presentation, Group work, based on assignments given by faculty.



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Program : PGDM (Real Estate Construction and Management)					Trimester : I	
Course : Construction Materials					Code : PDREM01003	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)	
3	-	-	3	Scaled to 70 marks	Scaled to 30 marks	
Objectives: <ul style="list-style-type: none"> To study and learn wide variety of materials, their identification and selection. To study key properties of various materials. 						
Outcomes: After successful completion of this course, students will be able to <ul style="list-style-type: none"> Understand and Evaluate use of different materials and properties Compare different materials viv-a-vis applications 						
Detailed Syllabus						
Unit	Topics					Duration (Hr)
1.	Cement : Composition of cement, Portland cement, Rapid Hardening cement, Quick setting, High Alumina cement, Sulphate resistant cement, White cement, Coloured cement and special uses, properties of cement such as setting , hardening of cement relative strength, grades of cement, manufacturing of cement, list and necessity of tests on cement.					04
2.	Bricks: Raw materials , manufacture of bricks, preparation of clay, moldings and burning in clamps and kilns, Allahabad, Hoffman's & Bull trench and kilns, varieties of bricks and their uses in construction, fire bricks, fire clay and their uses, concrete blocks, modern brick manufacturing methods					03
3.	Tiles: Roofing tiles, flat, half round and country tiles, Mangalore and similar tiles, glass roofing tiles and their uses, nano tiles, types of flooring tiles, transparent and opaque glazing.					03
4.	Sand: Sources, properties, uses and production of sand, natural and					03



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	manufactured sand.	
5.	Mortar and Concrete: Varieties of mortar: mud mortar, lime mortar and cement mortar, ingredients mixing of mortar, properties, uses in construction. Cement concrete, Ingredients, their function and use of concrete.	05
6.	Steel: Types, properties and use of steel.	02
7.	Aluminum and Glass: Properties and uses of aluminum, properties and use of glass.	03
8.	Smart and Intelligent Materials: Types & differences between Smart and Intelligent materials - Special features - Case studies showing application of smart and intelligent materials	04
9.	Plastics and Paints: Broad introduction to plastics as engineering materials, varieties, properties and uses of paints.	03
	Total	30

Text Books:

- Ashby, M.F and Jones D.R.H.H, (2005) "Engineering Materials: an Introduction to Properties, Applications and Designs", Elsevier Publications.
- Ghose D N, (1989), "Materials of Construction", Tata McGraw Hill Publishing Ltd.

Reference Books:

- Basem M. (2014) "Construction Technonlogy for High Rise Buildings: Handbook" CreateSpace Independent Publishing Platform.
- Mamlouk, M.S and Zaniewski. J.P (1999) "Materials for Civil and Construction Engineers", Prentice Hall Inc.
- Eroll Van Amsterdam (2002) "Construction Materials for Civil Engineers" Juta Academics.
- Mamlouk M. (2014) "Materials for Civil and Construction Engineering" Pearsons

Internal Continuous Assessment

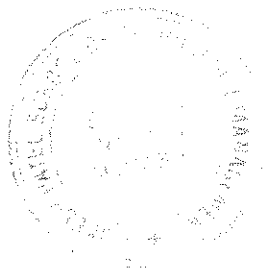
- One class test based on the above syllabus.
- Quiz, viva, presentation, Group work, based on assignments given by faculty.



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Program : PGDM (Real Estate Construction and Management)				Trimester : I	
Course : Building Construction				Code : PDREM01004	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
3	-	2	4	Scaled to 70 marks	Scaled to 30 marks
Objectives : <ul style="list-style-type: none"> To Study various construction techniques. To Study key aspects and sequence of construction activities 					
Outcomes : After successful completion of this course, students will be able to <ul style="list-style-type: none"> Assess the construction methods of each element of a structure Design typical elements for a structure 					
Detailed Syllabus					
Unit	Topics				Duration (Hr)
1.	Foundation : Necessity and Purpose of Foundation, Shallow Foundation, Spread foundation, raft foundation, deep foundation and it s types, Precast concrete piles. Modern methods of pile installation				04
2.	Masonry: Terminology, Preparation, construction procedure, post construction precautions, brick masonry stretcher bond and half brick thick masonry, hollow and solid concrete block masonry, fixing of door and window frame in masonry, block masonry. Procedure of constructing un-coursed Rubble and coursed masonry.				05
3.	Excavation: Manual and mechanical method of Excavation, characteristics of machines used for excavation, disposal of excavated material, dewatering of trenches, different methods used, shoring and strutting of Trenches, precaution while excavation, fencing - caution signs.				03
4.	Formwork and Scaffolding : Types, basic factors governing selection. Erecting and removal of formwork. Scaffolding types, precautions				03



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5.	Cement Concrete: Basics of Mix design of concrete and uses of different mix of concrete, procedure of mixing concrete, manual and machine mixing, transporting laying, compacting and curing of concrete, admixtures used in concrete, Ready mix concrete. High performance concrete	04
6.	Reinforced Cement Concrete: Terminology, Different types of RCC members, definitions, functions, ingredients of R.C.C. concrete, shape and types of Reinforcing steel bars used in RCC members.	04
7.	Floors : Solid ground floor, plinth fillings, floor finish with murum, brick-bat concrete, Indian patent stone, cement tiles, China mosaic, floorings for special purposes such as factories, warehouses, stables, garages, railway platforms, upper floors: jack arch construction, mezzanine floors and lofts.	04
8.	Pointing & Plastering: Necessity and types, methods of providing pointing and plastering	03
	Total	30

Text Books:

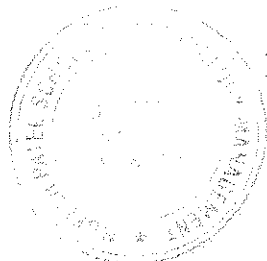
- Chudley Roy (2013) "Building Construction Handbook" Routledge Publications.
- Mantri Sandeep (2011) "The A to Z of Practical Building Construction and its Management" Mantri Publications.

Reference Books:

- Mathur S. (2012) "Building Construction Handbook" SBS Publishers.
- McKay (2013) " Building Construction" Pearson India
- Shepelev. A, (1986) "Plastering", Mir Publishers, Moscow.

Internal Continuous Assessment :

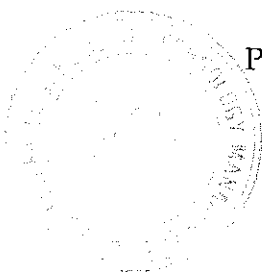
- One class test based on the above syllabus.
- Quiz, viva, presentation, Group work, based on assignments given by faculty.



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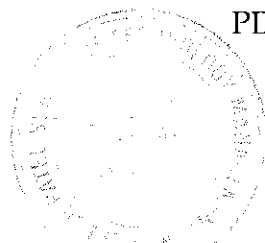
Program : PGDM (Real Estate Construction and Management)					Trimester : I	
Course : Material Testing Workshop - I					Code : PDREM01005	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)	
-	2	-	1	-	Scaled to 50 marks	
Objectives:						
<ul style="list-style-type: none"> • To know the tests and relevant equipments and machines. • To understand importance of testing. 						
Outcomes: After the successful completion of this course, students will be able to						
<ul style="list-style-type: none"> • Access different components of testing materials. 						
Detailed Syllabus						
Unit	Topics					Duration (Hr)
1.	Importance and relevance of material testing.					02
2.	Various testing equipment and procedures. Interpretation of test reports.					04
3.	Calibration of testing equipment and machines. IS codes.					04
4.	Demonstration of testing of cement, fine aggregate, bricks, tiles etc.					05
5.	Visit to testing laboratory at the project site.					05
	Total					20
Text Books:						
<ul style="list-style-type: none"> • Gambhir M. L. (2014) "Building and Construction Materials: Testing and Quality Control", McGraw Hill Publications. • Michael S. Mamlouk and John P. Zaniewski(2010) "Materials for Civil and Construction Engineers", 3rd Edition, Prentice Hall. 						
Reference Books:						
<ul style="list-style-type: none"> • Waterbury L (2008) "Laboratory Manual for the Use of Students in Testing Materials of Construction" HardPress. • Shan S. (2012) "Civil Engineering Materials" Pearson Publications 						
Term work: Case Studies / Assignments / Class Test/Presentation/Project						



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Program : PGDM (Real Estate Construction and Management)					Trimester : I	
Course : Principles of Management					Code : PDREM01006	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms(50 Marks)	
3	-	-	3	Scaled to 70 marks	Scaled to 30 marks	
Objectives: <ul style="list-style-type: none"> To understand the basic concepts of art and science of management To understand how to apply the management principles in various fields of study and practice 						
Outcomes: At the end of this course students should be able to <ul style="list-style-type: none"> Understand basic principles of management Understand the basic tools and techniques used in management 						
Detailed Syllabus						
Unit	Topics					Duration (Hr)
1.	Management: Evolution of management thought					03
2.	Principles of planning : Foundations of planning, planning tools and techniques					04
3.	Organization : Various forms of organization					04
4.	Leadership : Leadership definitions, leadership styles, importance, models, leadership skills, Theory X, Y & Z, Styles of management					05
5.	Motivation: Process of motivation, early theories of motivation, contemporary theories of motivation, job enrichment Vs. job enlargement, Management By Objectives					05
6.	Decision making: Tools & techniques, types of problems decision makers face, differences in decision making situations, managers as decision makers, steps in effective decision making process					05
7.	Managing Conflicts: Causes of conflict, managerial skills in reducing conflicts					04
	Total					30



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Text Books:

- Koontz H. & O'Donnel H., (2004), "Principles of Management", *Tata McGraw Hill*
- Daft R.L. & Marcic D. (2009), "Understanding Management", *South Eastern, Cengage Learning*

Reference Books:

- Koontz H. (2012), "Essential of Management : International & Leadership Perspective", *McGraw Hill Education (India)*.
- Collins J. (2001), "Good to Great : Why Some Companies Make The Leap & Others Don't", *Random House Business Books*
- Collins J. and Porras J.I. (2005), "Build to Last : Successful Habits of Visionary Companies", *Random House Business Books*
- Peters T. and Waterman R.H. (2004), "In search of Excellence: Lessons From America's Best Run Companies", *Profile Books Ltd.*

Term Work : Case Studies / Assignments / Class Test / Presentation / Project



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Program : PGDM (Real Estate Construction and Management)				Trimester : I	
Course : Introduction To Real Estate Sector				Code : PDREM01007	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks

Objectives:

- To understand the basic concepts related to Real Estate Sector
- Understand various aspects related to nature and management of Real Estate business

Outcomes: At the end of this course students should be able to

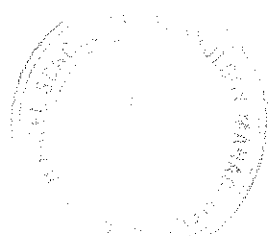
- Understand the concepts related to real estate sector
- Basic knowledge of all aspects related to nature of Real Estate business

Detailed Syllabus

Unit	Topics	Duration (Hr)
1.	Real Estate Definition & Scope; Classification of real estate activities and peculiarities; Components of immovable property, land and buildings, records pertaining to both ; Factors affecting real estate development; Role of Government in real estate market;	05
2.	Modeling Sequential events in real estate development process, Site evaluation ; Land Procurement; Development Team assembly	04
3.	Functions of real estate projects, risk management, facilities management, Environmental issues related to Real Estate	04
4.	Role, scope, working characteristics and principal functions of real estate participants and stakeholders, Code of ethics for Real Estate participants	04
5.	Real estate consultants and their activities; Types of agreements between the consultants and principal; Project closure	03
	Total	20

Text Books:

- Gerald R Cortesi (2001), "Mastering Real Estate Principles"; Dearborn Trade Publishing, New York, U.S.A.



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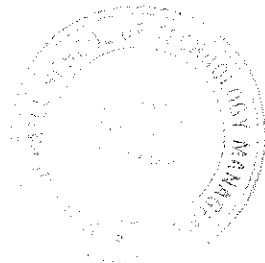
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- Fillmore W Galaty (2002), "Modern Real Estate Practice"; Dearborn Trade Publishing, New York, U.S.A.

Reference Books:

- Tanya Davis (2007), "Real estate developer's Handbook", Atlantic Publishing Company, Ocala, USA.
- Mike .E. Miles (2000), "Real estate development - Principles & Process", Urban Land Institute, ULI, 3rd edition
- Richard B Peiser & Anne B. Frej, "Professional real estate development" ,The ULI guide to the business - (2003), Urban Land Institute U.S.

Term work: Case Studies / Assignments / Class Test/Presentation/Project



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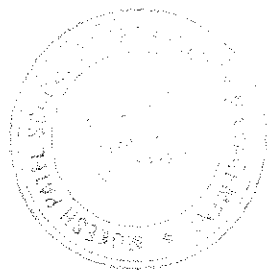
Program : PGDM (Real Estate Construction and Management)				Trimester : II	
Course : Project Delivery Process in Real Estate				Code : PDREM02001	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
3	-	2	4	Scaled to 70 marks	Scaled to 30 marks
Objectives					
<ul style="list-style-type: none"> • To understand project delivery process in real estate sector. • To know role and functions of various agencies. 					
Outcome					
After successful completion of this course, students will be able to					
<ul style="list-style-type: none"> • Understand the different stages from conceiving a project to delivery • Design a flow chart for a typical project 					
Detailed Syllabus					
Unit	Topics				Duration (Hrs)
1.	Project Process for Real Estate: Sequence of activities and events of this process, flow chart.				05
2.	Stakeholders in Project Development: Roles of Developer, Architect, and Structural Designer, Contractors and other allied and specialized agencies. Local municipal corporation.				05
3.	Types of Project Delivery Processes: Various types of delivery processes like DBM, DBOT, DBB				05
4.	Formwork and Scaffolding : Types, basic factors governing selection. Erecting and removal of formwork. Scaffolding types, precautions				05
5.	Role of Consultants: Role and functions of geotechnical Consultant and structural				05



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	designer. Role of Project Management and MEP consultants.	
6.	Post Construction Project Phase: Certificate of occupancy, Preparation of Closeout Documents.	05
	Total	30
Textbooks: <ul style="list-style-type: none">• Davis T. (2007) "The Real Estate Developers Handbook" Atlantic Publishing Group.		
Reference Books: <ul style="list-style-type: none">• Jain A. K. (2009) "Urban Land Policy: Public Private Partnership for Real Estate" Readworthy Publications.• Eynon J. (2013) "The Design Manager's Handbook" Wiley-Blackwell Publications.• Miles M. and Berens G. (2007) "Real Estate Development: Principles and Processes" Urban Land Institute.		
Term work: Case Studies / Assignments / Class Test/Presentation/Project		



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Program : PGDM (Real Estate Construction and Management)				Trimester : II	
Course : Building Byelaws & Statutory Approvals				Code : PDREM02002	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks
Objectives					
<ul style="list-style-type: none"> To understand various laws, regulations and notifications related to urban housing and infrastructure. 					
Outcome					
After successful completion of this course, students will be able to					
<ul style="list-style-type: none"> Evaluate importance of different laws, rules and regulations Outline sequence and importance of compliance Plan procedures for a typical structure 					
Detailed Syllabus					
Unit	Topics				Duration (Hrs)
1.	Building Proposals and Stages of Approvals: Building proposal, IOD, concessions and approvals, clearance at plinth further completion certificate, occupation certificate.				06
2.	Building Statutory Approvals: DC rules, MRTP act, Housing bill, Ministry of Environment and Forest clearance, Traffic and Fire NOC's.				07
3.	Building Certifications: Certificates from various authorities , civil suspension, certificates from various agencies - licensed plumber, P form, structural stability certificate, Architect's certificate, structural audit, etc. title of the unit.				07
	Total				20
Text Books:					
<ul style="list-style-type: none"> Singh J (2009) "Standard Handbook of Civil Engineering" Standard Publishers 					

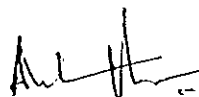


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Reference Books:

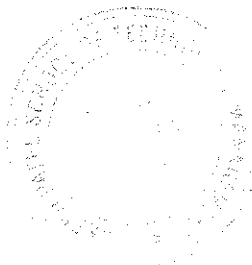
- Handbook and Guide on: D C Regulations (1998) PEATA Publications
- Building Proposal and Manual: Joint venture between MCGM and PEATA (1988) PEATA Publications.
- Building Proposal Manual: 1st Revision (1997) PEATA Publication.

Term work: Case Studies / Assignments / Class Test/Presentation/Project



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Program : PGDM (Real Estate Construction and Management)				Trimester : II	
Course : Building Planning & Design				Code : PDREM02003	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
3	2	-	4	Scaled to 70 marks	Scaled to 30 marks
Objectives <ul style="list-style-type: none"> To understand reading and interpretation of civil engineering drawing while supervising construction. To realize the importance for preparation of working drawings in design and drawing section as an executive and also interpret drawings for estimating. 					
Outcome After successful completion of the course, students will be able to: <ul style="list-style-type: none"> Understand and read different drawings Evaluate the utility of drawings and planning for further processes 					
Detailed Syllabus					
Unit	Topics				Duration (Hrs)
1.	Terminology : Technical terms commonly used in Civil Engineering Drawing, development of line plan in to detailed drawing, General principles of layout, proportioning, composition, functional treatment and massing as applied to the buildings of various types.				04
2.	Different Types of Plans: Floor Plans, Framing Plans, Foundation Plans, Mechanical Plans, Cross Section and Elevation, Site Plans.				04
3.	Reading and Interpretation of Drawings: Architectural, Structural, MEP and Approval Plans.				03
4.	Principles of Planning for Various Types of Buildings: Hospitals, hostels, shops, public health centers, theatres, suburban , post offices, market, holiday, hotels, primary schools, small factories, office buildings, scheduled banks, service apartments etc.				06



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5.	Detailing of Interiors of All Types of Buildings	05
6.	Perspective Drawing. Computer based	03
7.	Demonstration of Computer Aided Drawings	05
	Total	30

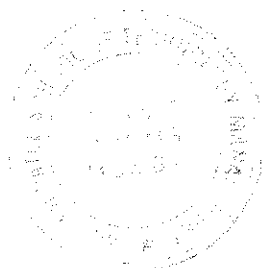
Text Books:

- Bhavikatti S.S. (2015) "Building Planning and Drawing" I K International Publishing.
- Kumarswami N. (2013) "Building Planning and Drawing" Charotar Publications.

References:

- Coles E. (2000) "Planning and Monitoring Design Work" Longman Publications.
- Khanna P. (2012) "Indian Practical Civil Engineers Handbook" UBS Publications.

Term work: Case Studies / Assignments / Class Test/Presentation/Project



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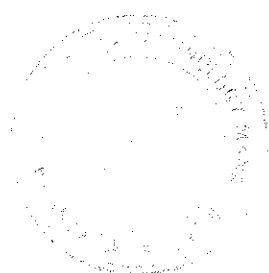
Program : PGDM (Real Estate Construction and Management)				Trimester : II	
Course : Construction Safety				Code : PDREM02004	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
3	-	-	3	Scaled to 70 marks	Scaled to 30 marks
Objectives <ul style="list-style-type: none"> To understand about construction safety, causes and measures to avoid accidents. To understand the cost of accidents vis a vis cost of safety. To study various policies and related laws. 					
Outcome After successful completion of the course, students will be able to: <ul style="list-style-type: none"> Understand and evaluate the safety requirements Carry out an audit of a structure and assess the shortcomings 					
Detailed Syllabus					
Unit	Topics				Duration (Hrs)
1.	Human Factors: Human behavior, Planned motivation schemes. The application of ergonomics in working situations, Principles of ergonomic design, Controls and displays, Display screen equipment, Manual handling injuries and conditions, Management actions Stress at Work, Post-traumatic stress disorder.				04
2.	Occupational Health: Occupational Diseases and Conditions, Occupational health, Occupational diseases, The Employment Medical Advisory Service, Occupational health schemes, Benefit of occupational health services, absence control, procedures, absence monitoring.				04
3.	Selection of Work Equipment: Principles of machinery safety, Other hazards associated with machinery operation, Machinery guards, Machinery safety devices, Planned maintenance.				04



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4.	Fire Prevention: The fire triangle, causes of fire spread, safety while using electrical appliances, explosives, fire extinction, fire application, colour coding of fire appliances, fire protection systems, legal requirements.	04
5.	Safety Regulations : Labour laws, legal requirement and cost aspects of accidents on site. Study of safety policies, methods, equipment and training provided in construction company. Safety gadgets.	04
6.	Construction Safety Management : Role of various stakeholders , duties and responsibilities of top management, site managers, supervisors, etc. role of safety officers, responsibilities of general employees, safety training, incentives and monitoring, writing safety manuals, preparing safety checklists and inspection reports. Cost of accidents and cost of safety, Insurance Policies related to safety.	05
7.	Investigation and Reporting : Investigation of injuries, Diseases and Dangerous Occurrences, Principles of Accident Prevention, Accident definitions, Incidents 'Hazard', 'Danger' and 'Risk' , Accident and ill-health, Risk assessment, the role of the health and safety officer.	05
	Total	30
Text Books:		
<ul style="list-style-type: none"> • Vaid N. K.(1988) " Construction Safety Management" NICMAR (Classic book). • Mishra R.K (2013) "Construction Safety" AITBS Publishers. 		
References:		
<ul style="list-style-type: none"> • Stranks, Jeremy (2010), "Health and Safety at Work: An Essential Guide for Managers", 9th Edition • Girimaldi and Simonds (2004)," Safety Management", AITBS Publication 		
Term work: Case Studies / Assignments / Class Test/Presentation/Project		



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Program : PGDM (Real Estate Construction and Management)				Trimester : II	
Course : Field Visits & Report - I				Code : PDREM02005	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
-	2	-	2	Scaled to 70 marks	Scaled to 30 marks
Objectives					
<ul style="list-style-type: none"> • To understand practices at construction sites and in trade. • To acquaint students about scale and speed of construction projects. 					
Outcome					
After successful completion of the course, students will be able to:					
<ul style="list-style-type: none"> • Assess the processes in building design & construction and project delivery • Carry out an audit of the utilities with reference to the safety, testing and quality processes 					
Detailed Syllabus					
Unit	Topics				Duration (Hrs)
1.	Visit to building construction project.				
2.	Visit to RMC plant.				
3.	Visit to Precast/Prefabrication manufacturing unit.				
4.	Visit to one township building construction project.				
	Total				20
Term work: Case Studies / Assignments / Class Test/Presentation/Project					



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Program : PGDM (Real Estate Construction and Management)				Trimester : II	
Course : Economics of Housing				Code : PDREM02006	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks
Objectives					
<ul style="list-style-type: none"> • To provide an overview of the importance of housing as basic need, types trends and polices. • To understand economics of housing. 					
Outcome					
After successful completion of this course students will be able to					
<ul style="list-style-type: none"> • Understand the economics of housing and evaluate its impact on real estate sector • Assess the future needs based on economic considerations 					
Detailed Syllabus					
Unit	Topics				Duration (Hrs)
1.	Introduction : Housing as a basic need. Role of Housing in social and economic development. Housing in relation to stages of development, particularly in relation to developing economy. Introduction to the subject of housing in Planning Programme, Micro and Macro-economic views of housing sector.				03
2.	Housing stress areas: Structural issues, high gestation period of housing project, limited and expensive capital, spiraling land and construction cost, high fees and taxes, unfavorable development norms and low affordability. Strategies and programs tried at various metropolitan cities.				04
3.	Types of Housing: Various types of Housing, Inclusive housing, affordable housing, luxury, hi - end, Mass Housing, LIG, MIG and HIG.				03
4.	Current trends: Trends in types of housing needs ownership, lease / rental, service apartments, etc.				02



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5.	Real Estate Sector's role: Strategic importance of this section, second largest employment generation sector after agriculture	01
6.	Economics of Housing: Demand and supply of housing. Steps and initiatives by public and private sector to meet the gap between demand and supply. Factors governing economics of housing.	05
7.	Global Trend: Present scenario in Global Real Estate, developments and changes, currents trends.	02
	Total	20

Text Books:

- Quigly, J. M. (1997). "The Economics of Housing", Edward Elgar Publishing, UK.
- Jain R. (2011). "Housing Finance in India". A K Publishers

References:

- Journal of Housing Economics, ScienceDirect.com
- NICMAR, Journal of Construction Management, Pune

Term work: Case Studies / Assignments / Class Test/Presentation/Project



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Program : PGDM (Real Estate Construction and Management)				Trimester : III	
Course : Construction Law				Code : PDREM03001	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
2	-	2	2	Scaled to 70 marks	Scaled to 30 marks
Objectives					
<ul style="list-style-type: none"> • To understand the basics of contract and related terms. • To understand basic concepts and essentials of valid contract. • To study the performance of contract, obligations of parties. 					
Outcome					
<p>After successful completion of this course, students be able to</p> <ul style="list-style-type: none"> • Understand different Construction law, Contract act. • Understand the importance of correct drafting of various contract documents. • Analyze implications of various clauses of contract. 					
Detailed Syllabus					
Unit	Topics				Duration (Hrs)
1.	Introduction: Society and Law, Construction Law, What is contract? Law Governing Contracts, Arbitration act				02
2.	Types of Contracts : Indian Contract Act, 1872, FIDIC Contract, Lease - Short Term & Long Term.				02

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3.	Basic Concepts: Essentials of Valid contract, Offer and Acceptance, Terms Express and implied, conditions, provisions, Promise, Promisor and promise, Consideration, Agreement and Contract, Mistake, Parties' ad idem, free consent, coercion, Undue influence, Fraud, Misrepresentation, and Mistake of fact.	04
4.	Void Agreements and Voidable Contracts: Mistakes, Void agreements, Contingent Contracts.	02
5.	The Performance of Contracts: Obligation of parties to perform contracts, by whom contracts must be performed, Time place and manner of performance, Performance of reciprocal promises, Performance of alternative promises, rules as to appropriation of payments, modes and discharge of contracts.	04
6.	Breach of Contract: Rules governing the measure of damage, Compensation for breach of contract, Rights of party rightfully rescinding a contract, Quantum Meruit.	03
7.	Loss or Damage and Theories of Recoveries: Disputes, concept of Liability, Source of claims, Types of claims, Delays, Alternate Dispute Resolution mechanisms, Arbitration process, reasoned and unreasoned awards	03
	Total	20

Text Books:

- Vandana Bhatt, Pinky Vyas, Suraj Vyas (2015), "Laws for Engineers (Contract, Arbitration, Evidence, Limitation), *Pro-Care India*.
- Noshhirvan H Jhabvala (2013), "The Law of Contracts "C. Jammadas & Co.

Reference Books:

- Anson (2010), "Law of Contract", *Oxford Publication*.
- Mulla(2012), "Indian Contracts Act(Bare Act)", *Lexis- Nexis India*.
- Thorpe S (2013), "The Arbitration and Conciliation Act -1996", *Lexis- Nexis India*.

Internal Continuous Assessment:

- One class test based on the above syllabus.
- Quiz, viva, presentation, Group work, based on assignments given by faculty.

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Program : PGDM (Real Estate Construction and Management)				Trimester : III	
Course : Property Documentation				Code : PDREM03002	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks

Objectives :

- To understand the basics of property documents and related terms.
- To understand the validity and accuracy of these documents.
- To study the clauses and authorities related to these.

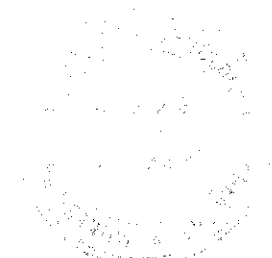
Outcome :

After successful completion of this course, students be able to

- Understand different property documents and their relevance.
- Understand the procedures related to property documents.
- Analyze implications of various clauses and important dates.

Detailed Syllabus

Unit	Topics	Duration (Hrs)
1.	Introduction: Components of immovable property. Land and buildings. Records pertaining to both.	02
2.	Types of Land Records : 7/12 Extract, City survey map, TPS maps, property card.	02
3.	Basic Concepts: Agricultural land and non-agricultural land, FSI, TDR, No development zone. Land deals, Recreation ground, IOD,CC and OC.	03
4.	Agreements: Development agreement, Agreement between developer and housing unit purchaser. Third party agreements.	03
5.	Indemnity bonds : Power of Attorney and various types of bonds.	02



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6.	Conveyance: Land conveyance, deemed conveyance	02
7.	Land Records and Taxes : Property tax and other taxes as per local authorities.	02
8.	Land acquisition and land surrendering: Land acquisition and surrendering as per schemes and need for infrastructure projects.	03
9.	CRZ Notification 2011: Salient Provisions, Purpose, Zoning, Restricted and permitted activities in each zone, special provisions for Mumbai	01
	Total	20

Text Books:

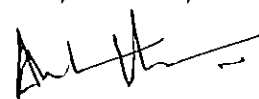
- Sanjiva Row (2012), "The Land Acquisition Act- 1894", *Kissinger Publications*

Reference Books:

- Latest Development Control Regulations of MCGM
- Sanjiva Row (2012), "The Land Acquisition Act(Act I of 1984) ", *Nabu Press*

Internal Continuous Assessment :

- One class test based on the above syllabus.
- Quiz, viva, presentation, Group work, based on assignments given by faculty.



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Program : PGDM (Real Estate Construction and Management)				Trimester : III	
Course : Modern Construction Techniques				Code : PDREM03003	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
2	-	2	3	Scaled to 70 marks	Scaled to 30 marks
Objectives					
<ul style="list-style-type: none"> To study and understand the latest construction techniques applied to engineering construction. 					
Outcome					
After successful completion of this course, students be able to					
<ul style="list-style-type: none"> Understand modern construction techniques for substructure, superstructure and special structures. Explain use of embedded systems in construction. 					
Detailed Syllabus					
Unit	Topics				Duration (Hrs)
1.	Substructure Construction Diaphragm walls and basement, Piling techniques, Driving well and caisson, sinking cofferdam, cable anchoring and grouting, Driving diaphragm walls, Sheet piles.				05
2.	Superstructure Construction for Building Construction Vacuum dewatering of concrete flooring, Concrete paving technology, Techniques of construction for continuous concreting operation in tall buildings of various shapes and varying sections, Erection techniques of tall structures, Large span structures, in-situ prestressing in high rise structures, Post tensioning of slab.				06
3.	Rehabilitation and Strengthening Techniques Strengthening of beams, Strengthening of columns, Strengthening				05



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	of slab, Strengthening of masonry wall, Protection methods of structures, Use of EPS and FRP.	
4.	Embedded Systems Embedded systems as labels, Internet enabled systems and its applications, Internet enabled building management systems and its components.	04
	Total	20

Text Books:

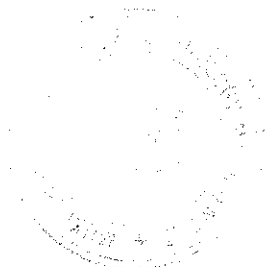
- Sankar, S.K. and Saraswati, S (2008), "Construction Technology", *Oxford University Press, New Delhi.*
- PS Gahlot & Sanjay Sharma (2006), "Building repair and maintenance management" *CBS Publications.*

Reference Books:

- Robertwade Brown (2005), "Practical Foundation Engineering Hand Book", *Mcgraw Hill Publications*
- Patrick Powers. J. (1992), "Construction Dewatering: New Methods and Applications", *John Wiley & Sons.*

Internal Continuous Assessment:

- One class test based on the above syllabus.
- Quiz, viva, presentation, Group work, based on assignments given by faculty.



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Program : PGDM (Real Estate Construction and Management)				Trimester : III	
Course : Total Quality Management				Code : PDREM03004	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks
Objectives					
<ul style="list-style-type: none"> • To understand the Total Quality Management concept. • To understand principles and the various tools available to achieve Total Quality Management. 					
Outcome					
After successful completion of this course, students be able to					
<ul style="list-style-type: none"> • Understand Total Quality Management-concept, principles and tools • Explain various Quality Control Systems 					
Detailed Syllabus					
Unit	Topics				Duration (Hrs)
1.	Introduction to Total Quality Management: Definition of Quality, Quality Planning, Quality costs, Quality basics and history, Quality advocates, Quality improvement. Basic of Total Quality Management, Historical Review				03
2.	Concepts of Total Quality Management: Principles of TQM, Contributions of Deming, Juran and Crosby				03
3.	Quality of Construction Materials and Workmanship: Specifications, How to define, standard documents and specifications therein, Evolving Standards, Benchmarking				03
4.	Quality Costs: Quality Cost Measurement, Utilizing Quality Costs for Decision-Making				03
5.	Quality Improvement Techniques: Pareto Diagrams, Cause-Effect Diagrams, Run Charts				02

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6.	Statistical Concepts: Control Charts for Variables, Variation: Common vs. Special Causes, Control Chart Techniques :X-bar and R chart, Control Chart Interpretation and Analysis, Using Charts to Pinpoint Problems	03
7.	Quality Systems: ISO 9000, Certification Requirements, and Auditing	03
	Total	20

Text Books:

- Dale H. Besterfield, et al (2011), "Total Quality Management", *Pearson Education Asia*.

Reference Books:

- James R. Evans and William M. Lindsay(2005), "The Management and Control of Quality", *South-Western (Thomson Learning)*.
- Suganthi, L and Anand Samuel (2006), "Total Quality Management", Prentice Hall (India) Pvt. Ltd.
- Janakiraman, B and Gopal, R.K (2006), "Total Quality Management - Text and Cases", *Prentice Hall (India) Pvt. Ltd.*

Internal Continuous Assessment :

- One class test based on the above syllabus.
- Quiz, viva, presentation, Group work, based on assignments given by faculty.



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Program : PGDM(Real Estate Construction and Management)				Trimester : III	
Course : Seminar-I				Code : PDREM03005	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
-	10	-	5	-	Scaled to 50 marks
Objectives					
<ul style="list-style-type: none"> To study and understand various aspects of construction through practical interactive sessions at site. 					
Outcome					
1. After successful completion of this course, students will be able to explain the construction practices used on site and relate with the classroom training.					
Detailed Syllabus					
Unit	Topic				Duration (Hrs)
1.	<p>For students working in Real estate/Construction organization- Problem areas in his organization to be identified and accordingly three presentations are to be made.</p> <p>For students working in different organization- Arrangements have to be made for weekly visits to real estate/ construction organization and problem areas in this organization to be identified and accordingly three presentations are to be made.</p>				40
	Total				40



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Program : PGDM (Real Estate Construction and Management)				Trimester : III	
Course : Sustainable Development				Code : PDREM03006	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks
Objectives:					
<ul style="list-style-type: none"> • To understand the basics of sustainable development principles and its application in real cases. • To understand the various ecological challenges and solutions from construction industry perspective. 					
Outcomes At the end of this course students should be able to					
<ul style="list-style-type: none"> • Understand the various concepts of sustainable development • Understand various legal requirements for sustainable development 					
Detailed Syllabus					
Unit	Topics				Duration (Hrs)
1.	Components of Sustainability matrix in Real Estate Development: Evaluation of sustainability development, various practices and philosophies adopted like humanization of nature Vs Naturization of human. Sustainability in design, construction and operation maintenance. Concept of climate change and its impacts on construction industry. Carbon foot prints calculations.				03
2.	Environmental Standards & Certification In Real Estate Development: Applicability of EIA in Real Estate development and management, environmental assessment of sites for real estate development, EIA of large scale residential complexes, townships, malls, etc. ASHRAE (Standard Of The American Society Of Heating, Refrigerating & Air-Conditioning Engineers), LEED (Leadership In Energy And Environmental Design), ECBC, BEE Energy Star rating programme, NBC and NBC part 11, SP 41. Various certification programmes like GRIHA, IGBC, USGBC for various types of				04



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	developments, Introduction to Green Ratings system for factories and infrastructure projects. Role of IMS (Integrated Management Systems) Comprising IS) 9001, ISO 14001 (Certification In Environmental Management System) ,OHSAS 18001 (Certification In Occupational Health And Safety Management System)	
3.	Environmental Laws Applicable To Real Estate Development : MoEF, CRZ, pollution control, CGWB, solid waste management including WTP, STP, bio and non-biodegradable waste, construction waste management, CTE and CTO requirements along with continuous monitoring Environmental approval conditions.	03
4.	Green Buildings: Performance design and performance evaluation, Comfort designs, various softwares used for weather charts, energy analysis, shading and sun path analysis and application of such analysis in project. Importance of passive design principles as against active design principles, costing approach towards sustainable design.	04
5	Environmental policies, public opinions and various movements: Various people's movement and inferences derived for various developments, e.g. Dr Gandil Committee, Aravali movements, Forest man of India Mr Jadav Payeng, Niyamgiri cases, Devrai to Heat island effects etc practical cases.	03
6	Renewal Energy and materials : Various sources of renewable energy like solar, thermal, wind. Air water heaters, BPV, methanation, bio mass etc. Alternative construction materials considering low embodied energy, recycle content, its usability in terms of performance and cost.	03
	Total	20

Text Books:

- Kilbert C. (2012), "Sustainable Construction", *John, Wiley and Sons, 3rd Edition.*
- ECBC- Energy Conservation Building Code, *Ministry of Power, GOI*
- NBC: National Building Design Code (2005) (all parts 1 to 11) , *BIS*
- SP 41 : Hand book on Functional Requirements of Building, *BIS*



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Reference Books:

- GRIHA Manuals.
- Various IGBC rating systems information books.
- Praful Bidwai (2012), "The politics of climate change and the global crisis" *Oriental Black Swan*.
- CSE publication (2014) "Building Sense- Beyond the green façade of sustainable habitat" *Centre for Science and Environment*.
- BEE - Bureau of Energy Efficiency, GOI
- Down to Earth magazines, India environment portals as, published by Centre for Science and Environment
- Goeters, J.E,(1996), "Environmental Issues in Real Estate" ,*Prentice Hall*
- Witkin . J.B. (1996), "Environmental Aspects of Real Estate Transactions" ,*Amer Bar Association*

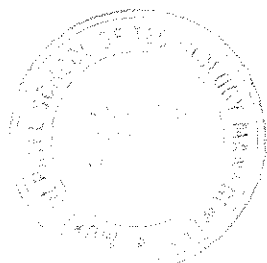
Term work: Case Studies / Assignments / Class Test/Presentation/Project



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Program : PGDM (Real Estate Construction and Management)				Trimester : IV	
Course : Building Services				Code : PDREM04001	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) As per Institute Norms (50 Marks)
3	-	-	3	Scaled to 70 marks	Scaled to 30 marks
Objectives: <ul style="list-style-type: none"> To impart knowledge of the various Building Services and Utilities and their functions. To illustrate the rules and regulations controlling the provisions of these Building Services 					
Outcomes: After the successful completion of course, the students will be able to <ul style="list-style-type: none"> Access different Building Services and Utilities required for the smooth function of the buildings Understand the rules and regulations controlling the provisions of these Building Services. 					
Detailed Syllabus					
Unit	Topics				Duration (Hr)
1.	Introduction: Class and type of buildings, services needed by various kinds of buildings.				03
2.	Light and Electricity: Requirement as per zoning rules, brief calculation, planning and designing, Basic consideration area wise, Types of panels, cables. General guidelines about LT and HT.				04
3.	HVAC: Natural and artificial ventilation, Requirement as per zoning rules, brief on planning and designing, Types of air conditioning systems, General guideline about AC equipment and space planning.				03
4.	Water and drainage works: Water requirement of building, size of water connection, procedure, follow up, Water distribution system, wing type, loop type, concealment, ducting and open, Types of materials for pipelines, fixtures. Overhead tank, Underground water tank, Provisions at various stages of building construction, Gravity and Hydro-pneumatic systems, Types of pumps.				05



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5.	Fire protection: Design for fire proofing, materials, fire escape routes and provision, Insurance for fire hazards. General guidelines on CFO norms. Types of fire pumps, General knowledge of sprinkler and Hydrant systems. Fire alarm and public system.	04
6.	Acoustics : Design for acoustics, materials and their placement, Types of acoustics insulation and equipment, Guideline on room acoustic, roof acoustic duct acoustic etc.	04
7.	Vertical transportation: Staircase and lifts, Requirement and provisions for lift erection, parts of lift system, Power requirements and provisions. Relevant zoning regulations, Lift types and related considerations, escalators, travellers	04
8.	Gas and Security System: Necessity, application and advantages. Services and distribution piping. Types of Security Systems, Advantages and Cost, CCTV and other modern types of security systems.	03
	Total	30

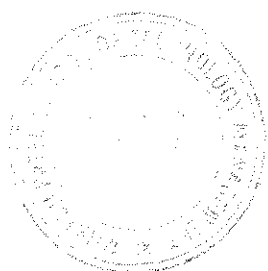
Text Books:

- S. M. Patil(2008), "Building Utilities and Services", S. M. Patil.
- V. K. Jain(2007), "Fire Safety in Buildings", New Edge International Publications.

Reference Books:

- Derek Philips (2000), "Lighting Modern Buildings", Architectural Press.

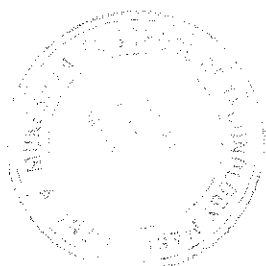
Term work: Case Studies / Assignments / Class Test/Presentation/Project



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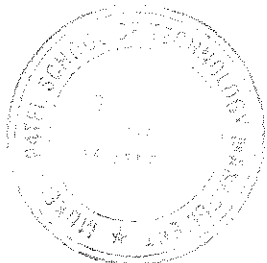
Program : PGDM (Real Estate Construction and Management)				Trimester : IV	
Course : Accounting & Taxation				Code : PDREM04002	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) As per Institute Norms (50 Marks)
3	-	2	4	Scaled to 70 marks	Scaled to 30 marks
Objectives:					
<ul style="list-style-type: none"> • To study the accounting procedure and reporting. • To understand important provisions of Income tax, excise and sales tax 					
Outcomes: After successful completion of this course, students will be able to					
<ul style="list-style-type: none"> • Access and analyze financial information • Understand basics of taxation 					
Detailed Syllabus					
Unit	Topics				Duration (Hr)
1.	Introduction to Accounting: Concept and necessity of Accounting, accounting principles, Overview of Income Statement and Balance sheet , Process leading to preparation of Trial Balance and Financial Statements, Preparation of Financial Statements with Adjustment Entries.				04
2.	Revenue Recognition and Measurement: Capital and Revenue Items, Treatment of R & D Expenses, Reproduction Cost, Deferred Revenue Expenditure, Fixed Assets and Depreciation Accounting, Evaluation and Accounting of Inventory.				05
3.	Financial Forms: Preparation and Complete Understanding of Corporate Financial Statements, 'T' Form and Vertical Form of Financial Statements.				04
4.	Corporate Financial Reporting: Analysis & Interpretation thereof with reference to Ratio Analysis. Fund Flow, Cash Flow.				04
5.	Income Tax Act: Purpose of Income Tax Act and provisions, provisions related to Real Estate				07
6.	Central Excise Act 1944: Principles of Liability for payment of Excise duty/CENVAT				03



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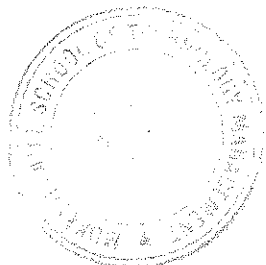
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7.	Central Sales Tax and Maharashtra VAT Act , Service Tax	03
	Total	30
Text Books: <ul style="list-style-type: none">• Narayanswamy. R. (2014), "Financial Accounting: Managerial Perspective", PHI, 5th Edition		
Reference Books: <ul style="list-style-type: none">• Tulsian. P.C. (2002), "Financial Accounting", Pearson Publications• Charles T.(2008), "Introduction to Financial Accounting", Pearson Education, 9th Edition		
Term work: Case Studies / Assignments / Class Test/Presentation/Project		



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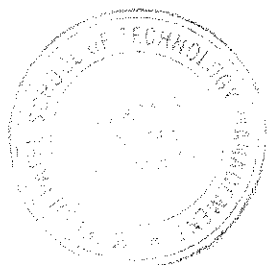
Program : PGDM (Real Estate Construction and Management)				Trimester : IV	
Course : Legal Aspects of Construction				Code : PDREM04003	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) As per Institute Norms (50 Marks)
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks
Objectives:					
<ul style="list-style-type: none"> To understand basics of various labor laws related to construction projects To understand the legal framework for implementing projects 					
Outcomes: At the end of this course, the students will be able to					
<ul style="list-style-type: none"> Understand the legalities involved in the real estate business Access various laws and regulations related to real estate sector 					
Detailed Syllabus					
Unit	Topics				Duration (Hr)
1.	Sale of Goods Act: Concept, Uses, Main Provisions of the Act.				02
2.	Partnership: Law related to partnership, various forms of partnership, concept of SPV & JV and related legal framework				02
3.	Overview of Companies Act 2013: Formation, documentation, MOA & AOA, meetings and management, shares and share capital, IPR laws.				04
4.	Regulations in Real Estate: Labour Regulations, Social Security, Welfare Legislation, Laws relating to minimum wages, Bonus and Industrial disputes, Labour Administration, Insurance and safety Regulations, Workmen's Compensation Act, BOCW, Other Labour Laws.				04
5.	Labor Laws in Real Estate: Legal Requirements related to Insurance and Bonding, Laws governing sale, Purchases and use of Urban and Rural land, Land revenue codes, Tax Laws, Income tax, Sales tax, Excise and customs duties and their influence on construction, Costs, Legal Requirements of Planning, Property Law, Agency Law, Local Government Laws for Approval, Statutory Regulations				04
6.	The Real Estate (Development & Regulation) Act 2016: Salient provisions.				04



A. C. H.

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	Total	20
Text Books: <ul style="list-style-type: none">• Vandana Bhatt, Pinky Vyas, Suraj Vyas (2015), "Laws for Engineers (Contract, Arbitration, Evidence, Limitation), <i>Pro-Care India</i>.• Noshhirvan H Jhabvala (2013), "The Law of Contracts", C. <i>Jamnadas & Co.</i>		
Reference Books: <ul style="list-style-type: none">• Anson (2010), "Law of Contract", <i>Oxford Publication</i>.• Mulla (2012), "Indian Contracts Act (Bare Act)", <i>Lexis- Nexis India</i>.• Thorpe S (2013), " The Arbitration and Conciliation Act -1996", <i>Lexis- Nexis India</i>		
Term work: Case Studies / Assignments / Class Test/Presentation/Project		



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Program : PGDM (Real Estate Construction and Management)				Trimester : IV	
Course : Entrepreneurship Development				Code : PDREM04004	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) As per Institute Norms (50 Marks)
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks

Objectives:

- To study the concepts of entrepreneurship development.
- To study the role of various Government and other organizations supporting entrepreneurship development in India.
- To understand the management of MSME including the service sector.

Outcomes: After successful completion of the module / coursework, the participants will be able to:

- Access the process of developing and operations the new ventures / business
- Understand and explain the role of entrepreneur and entrepreneurship development.

Detailed Syllabus

Unit	Topics	Duration (Hr)
1.	Basics of Entrepreneurship Development: Introduction, Definitions, Entrepreneur, Entrepreneurship, Intrapreneur, Entrepreneurship as a career Merits and De-Merits, Qualities / Characteristics / Competencies of an Entrepreneur, Types & Classifications of Entrepreneurs, Entrepreneur Vs Executive / Managers	04
2.	Dynamics of Entrepreneurship: Decision Making, To be an Entrepreneur or Not, Business Opportunities Selection.	04
3.	Business Plan and Project Report Preparation: Feasibility study, Components of Business Plan, Contents of a Project Report	04
4.	Supporting Organizations: Financial, marketing, Training & Others	03
5.	Entrepreneurship in Real Estate Sector: Turnkey Entrepreneurship, Steps to set up an Enterprise, Service sector, Case studies, Global business, Introduction, Contemporary issues in entrepreneurship eg. ecological, legal, risk, CSR	05



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Program : PGDM (Real Estate Construction and Management)				Trimester : IV	
Course : Quantity Surveying and Estimation				Code : PDREM04005	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) As per Institute Norms(50 Marks)
3	-	2	4	Scaled to 70 marks	Scaled to 30 marks

Objectives:

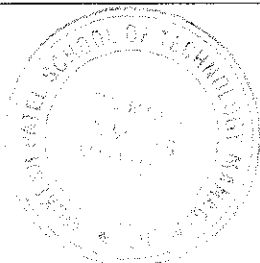
- To impart knowledge of estimate of buildings and its components
- To study rate analysis for various items of work
- To acquire knowledge of tender documents and its preparation
- To inculcate knowledge of valuation of property

Outcomes: After the successful completion of this course, students will be able to

- Understand estimates for building and its components.
- Understand rate analysis.
- Access valuation of civil works.

Detailed Syllabus

Unit	Topics	Duration (Hr)
1.	Estimates and Approximate Estimates: Various types, their relevance, factors to be considered, complete set of estimate. Importance and Purpose of Approximate Estimates, Different methods of finding Approximate Estimates, Methods of preparation of estimates for buildings & roads.	04
2.	Methods of Building Estimate: General items of work, Principle units of various items of work, Units of measurement for different items of work, Different methods for estimation of building works, Principle of Estimating single and two room buildings.	04
3.	Specifications and Rate Analysis: Type, Requirements and Importance Purpose and Necessity of Rate Analysis, Factors affecting Rate Analysis , Task Work	04
4.	Measurements of various items and Material Survey: Use of relevant IS specifications, Taking out quantities from the given requirements of work, Comparison of different alternatives, Bar Bending Schedule, Mass Haul diagrams, Approximate estimate of requirement of	06



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	materials for building works, Percentage Breakup of the cost, Market Survey of Basic Material, Cost Sensitivity Index.	
5.	Tender documents: Invitation of Tenders, Types of Tenders, Types of Contract, Prequalification, General and Special Conditions of Contract, Liquidated Damages, Termination, Extra Work, Settlement of Disputes, Payment, Insurance and Claims.	06
6.	Estimation of MEPF systems	06
	Total	30

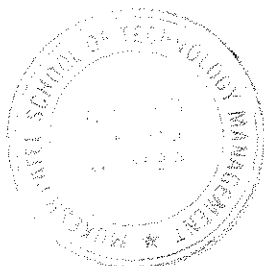
Text Books:

- M. Chakraborty (2010), "Estimating, Costing Specification & Valuation in Civil Engineering", M. Chakraborty Publishers, Kolkata.

Reference Books:

- B.N. Dutta (1998), "Estimating, Costing in Civil Engineering", UBS Publishers Distributors Pvt. Ltd.
- B.S.Patil (2006), "Civil Engineering Contracts and Estimates", Universities Press (India) Pvt. Ltd.

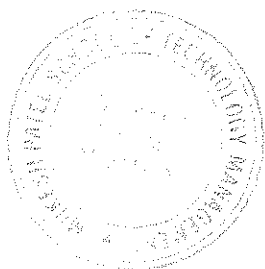
Term work: Case Studies / Assignments / Class Test/Presentation/Project



A. L. H.

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Program : PGDM (Real Estate Construction and Management)				Trimester : IV	
Course : Material Testing and Workshop-II				Code : PDREM04006	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks))	Internal Continuous Assessment (ICA) As per Institute Norms(50 Marks)
-	2	-	1	-	Scaled to 50 marks
Objectives:					
<ul style="list-style-type: none"> • To know the tests and relevant equipments and machines. • To understand importance of testing. 					
Outcomes: After the successful completion of this course, students will be able to					
<ul style="list-style-type: none"> • Access different components of testing materials. 					
Detailed Syllabus					
Unit	Topics				Duration (Hr)
1.	Importance and relevance of testing				02
2.	Various testing equipment and procedures. Interpretation of test reports.				04
3.	Calibration of testing equipment and machines. IS codes				04
4.	Demonstration of testing on soil, water, sand, etc.				05
5.	Visiting to testing laboratory at project site.				05
	Total				20
Text Books:					
<ul style="list-style-type: none"> • Gambhir M. L. (2014) "Building and Construction Materials: Testing and Quality Control", <i>McGraw Hill Publications</i>. • Michael S. Mamlouk and John P. Zaniewski(2010) "Materials for Civil and Construction Engineers", 3rd Edition, <i>Prentice Hall</i>. 					
Reference Books:					
<ul style="list-style-type: none"> • Waterbury L (2008) "Laboratory Manual for the Use of Students in Testing Materials of Construction" <i>HardPress</i>. • Shan S. (2012) "Civil Engineering Materials" <i>Pearson Publications</i> 					
Term work: Case Studies / Assignments / Class Test/Presentation/Project					



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Program : PGDM (Real Estate Construction and Management)				Trimester : V	
Course : Principles of Valuation in Real Estate				Code : PDREM05001	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
3	-	2	4	Scaled to 70 marks	Scaled to 30 marks

Objectives:

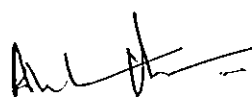
- To understand the basics of valuation of properties.
- To understand the tools and techniques used for valuation of properties.

Outcomes: At the end of this course students should be able to

- Understand the the basics of valuation of properties.
- Understand the tools and techniques used for valuation of properties.

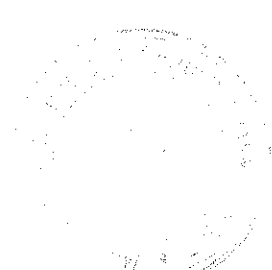
Detailed Syllabus

Unit	Topics	Duration (Hrs)
1.	Cost, price and value : Nature and scope of valuation function, Role and function of valuer, value theory, types of value, value elements, ingredients, characteristics, highest and best use value in use, value in exchange, sources of data collection for value, Introduction to Tariff Advisory Committee recommendations	06
2.	Annuities : Capitalization , rate of capitalization, Sinking fund, Redemption of capital, Types of ownership & occupancy of properties, Construction and use of valuation tables	06
3.	Income approach to value : Rent : Origin, classical theories and evolution of the concept; Types of rent, outgoings, income, yield, years' purchase; Lease : lessor and lessee : covenants, terms and conditions; Leasing; land and building; occupational lease; Valuation : lessor's interest, lessee's interest including sub-lease	06
4.	Market Approach to Value : Market, real estate market, market value; bell type curve, Comparison of sale instances , factors, methods and weightages	06
5.	Cost Approach To Value : Cost Ingredients Costing Methods; Accrued depreciation and methods of computation including norms in Income Tax Act and Companies Act : retirement of assets age, effective age, economic life and remaining life, depreciated replacement cost	06



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Total	30
Text Books: <ul style="list-style-type: none">• NamavatiRoshan H., (1998), "Theory and Practice of Valuation", <i>Universal Book Corporation</i>.• Ashok Nain (1993), "Professional Valuation Practice", <i>Tata Mcgraw Hill</i>• Shyamales Dutta (2004), "Valuation of Real Property : Principles and Practice", <i>Eastern law House</i>.• Grish Chand Gupta (2002), "Valuation of Immovable properties" ,<i>Bharath Law House, New Delhi</i>.	
Reference Books: <ul style="list-style-type: none">• Ko Wang,(2001)"Real estate valuation theory" , <i>KluwerAcademic publishers, S. America</i>.• Howard C Gelbtuch, (1997), "Real estate valuation in global markets" , <i>Appraisal Institute</i>.• AswanthDamodaran, (2002), 'Investment Valuation" ,<i>John Wiley & Sons, UK</i>.	
Term work: Case Studies / Assignments / Class Test/Presentation/Project.	



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Program : PGDM (Real Estate Construction and Management)				Trimester : V	
Course : Marketing Management				Code : PDREM05002	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
3	-	-	3	Scaled to 70 marks	Scaled to 30 marks

Objectives:

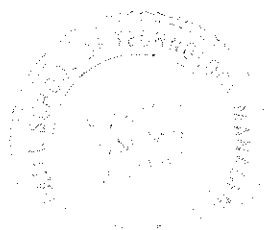
- To understand the marketing concepts and orientation
- To understand the various marketing models for solving marketing problems

Outcomes: At the end of this course, the students should be able to

- Understand the key concepts of marketing.
- Access the marketing strategy and marketing problems.

Detailed Syllabus

Unit	Topics	Duration (Hrs)
1.	Introduction to Marketing: Concepts and Orientation	02
2.	Definitions and key concepts: Consumer Decision Process, Brand Equity, Integrated marketing Communication, Definition and Distinctive characteristics of Services Business and Decisions related to global entry strategies.	03
3.	Marketing strategy: Need for strategy, Concepts.	03
4.	Customer Relationship: Building Customer Value, Satisfaction and Loyalty, CLV, Relationship marketing, Database Marketing	04
5.	Marketing Concepts: Segmenting, Targeting & Positioning	03
6.	Competitive Strategies: Competitive Strategies for Market Leaders, Challengers and Niches.	03
7.	Setting Product Strategy: Characteristics and classification, Product Mix Pricing, New Product Development Process.	03
8.	Marketing Channels: Designing & managing integrated marketing channels.	02
9.	Pricing Strategies: Developing Pricing Strategies and programs	02
10.	Real Estate Marketing & Negotiation: Fundamentals of Real Estate Marketing & Negotiation, Concepts, Principles & Practices in	05



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	Marketing & Testing of various types of Real Estate Developments, Nature of Real Estate Conflicts, Disputes, Negotiation Theory, Principles, Skills, Practice & Application of Negotiation Skills, Digital Marketing Concepts	
	Total	30
Text Books: <ul style="list-style-type: none">• Kotler, P., Keller, Koshy, Jha (2013), "Marketing Management", <i>Pearson Publications- New Delhi</i>,		
Reference Books: <ul style="list-style-type: none">• Saxena R. (2009), "Marketing Management", <i>Tata Mcgraw Hill- New Delhi</i>		
Term work: Case Studies / Assignments / Class Test/Presentation/Project		



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SVKM'S NMIMS
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Program : PGDM (Real Estate Construction and Management)				Trimester : V	
Course : Material Management				Code : PDREM05003	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks

Objectives:

- To understand Material Management principles and application in present scenario
- To understand tools and techniques used for Material Management

Outcomes: At the end of this course, the students should be able

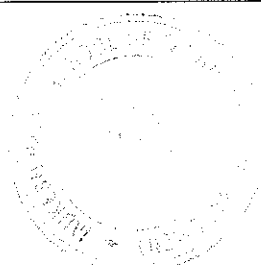
- Understand the principles of Material Management.
- Understand the tools and techniques used for Material Management.

Detailed Syllabus

Unit	Topics	Duration (Hrs)
1.	Material Management: Definition, Overview, Introduction, Scope, Objective, Importance, Integrated Approach to Materials Management.	03
2.	Material Planning: Introduction, Factors affecting Material Planning, Techniques of Material Planning, MRP.	03
3.	Purchasing: Procedure & Pricing Issues, Receipt, Storage, Issue.	04
4.	Inventories: Definition, Classification of Inventories, Need for Inventories, Merits & Demerits of Inventories.	02
5.	Inventory control techniques and principles: Classification, codification, standardization, ABC analysis, VED, GOLF, FSN, HML.	05
6.	Economic order quantity concept: Derivation of EOQ formula, Modified EOQ.	02
7.	Softwares for inventory management	01
	Total	20

Text Books:

- J.R.Tony Arnold (2009), "Introduction to Materials Management", *Pearson Publications*.
- K. K. Ahuja (2013), "Materials Management", *CBS Publishers & Distributors*.
- Gopalkrishnan & Sundersan (2009), "An integrated approach to Materials Management", *PHI Learning*.



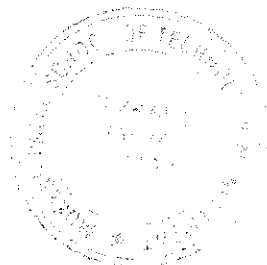
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Reference Books:

- Gopal Krishnan, P. (2015), "Handbook of Materials Management", *Prentice Hall of India Pvt. Ltd., New Delhi.*
- Ronald H. Ballou (1999), "Business Logistics Management", *ABC Publication.*

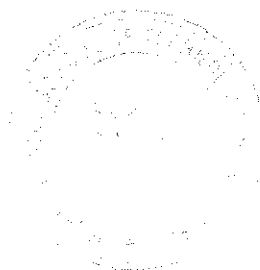
Term work: Case Studies / Assignments / Class Test/Presentation/Project



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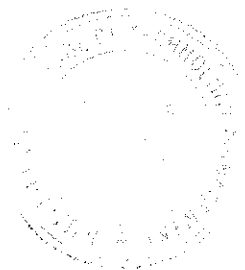
Program : PGDM (Real Estate Construction and Management)				Trimester : V	
Course : Project Management				Code : PDREM05004	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
3	-	-	3	Scaled to 70 marks	Scaled to 30 marks
Objectives:					
<ul style="list-style-type: none"> To understand the construction related issues that are to be kept in mind while implementing real estate projects. 					
Outcomes: At the end of this course students will be able to :					
<ul style="list-style-type: none"> Understand basic construction management principles Access scheduling of construction process 					
Detailed Syllabus					
Unit	Topics				Duration (Hrs)
1.	Basics of Project Management: The Owner's Perspective - Introduction - project life cycle - major types of construction - selection of professional services - construction contractors - legal and regulatory requirements - the changing environment of the construction industry				07
2.	Project Management: Organising for Project Management, What is project management, the role of project managers , Effects of project risks on organization, organization of project participants, traditional designer, constructor sequence professional construction management, Owner and Builder, Operation, Turnkey Operation, Interpersonal behavior in project organization, Perceptions of Owners and Contractors				08
3.	Labour, Material and Equipment Utilization: Historical Perspective, Labour Production , Factors affecting job site, Productivity, Labour relations in construction , Inventory control, Construction Equipment, Choice of Equipment, Standard production rates.				08
4.	Basic concepts of scheduling: Work Breakdown Structure, Time scheduling Techniques, CPM / PERT network analysis, Resource Management and Scheduling Techniques, EVM, Introduction to MSP				07



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	Total	30
Text Books: <ul style="list-style-type: none">• Jha Kumar Neeraj (2011), "Construction Project Management", <i>Pearson Publications</i>.• Chitkara K.K. (2010), "Construction Project Management : Planning, Scheduling & Controlling", <i>Tata McGraw Hill</i>.• Gahlot P.M. and Dhir B.M. (2007), "Construction Planning and Management", <i>New Age International</i>.		
Reference Books: <ul style="list-style-type: none">• Dennis Lock (2013), "Project Management", <i>Grower Publication</i>.• John M Nicholas (2008), "Project Management for Business and Technology (Principles & Practice)", <i>Pearson Publications</i>.• C. Gray and E. Larson (2011), "Project Management : The Managerial Process", <i>Mcgraw Hill</i>.• Barrie & Paulson (2013), "Professional Construction Management", <i>Tata McGraw Hill</i>• Kerzner&Harolds,(1987), "Project Management", <i>CBS Publishers</i>• Prasanna Chandra,(2011), "Projects preparation, appraisal, budgeting & implementation", <i>Tata McGraw Hill</i>• Chris Hendrickson,(1998), "Project Management for Construction: Fundamental Concepts for Owners, Engineers, Architects and Builders"•		
Term work: Case Studies / Assignments / Class Test/Presentation/Project		



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Program : PGDM (Real Estate Construction and Management)				Trimester : V	
Course : Financial Management				Code : PDREM05005	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
3	-	-	3	Scaled to 70 marks	Scaled to 30 marks

Objectives:

- To understand the theories of corporate finance
- To understand the computation of minimum return required to sustain in business

Outcomes: At the end of this course, the students will be able to

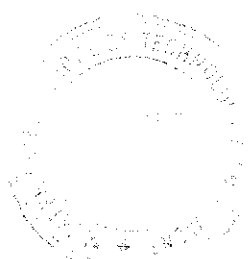
- Understand the techniques and methodology for corporate financial decision making
- Access the financial needs of a project.

Detailed Syllabus

Unit	Topics	Duration (Hrs)
1.	Introduction to financial management : Basic concepts, role of finance manager, Principal Agent conflict, Introduction to financial systems - markets and products	03
2.	Financial Concepts: Time value of money, annuities, different compounding periods	04
3.	Investment Decisions : Non discounting cash flow methods : Simple pay back, Average Rate of Return, Pay Back Profitability, Discounted Pay Pack, NPV, Benefit cost Ratio (Profitability Index), IRR, Accept / Reject criteria, Quantification of Cash flows, After Tax Cash flows	05
4.	Leverages : Operating, financial and combined leverages	04
5.	Financial Costs: Cost of capital, Weighted Average cost of Capital, Effect of Taxes	04
6.	Working Capital Management	05
7.	Project Finance	05
	Total	30

Text Books:

- Srivastava R. & Misra A. (2012), "Financial Management", Oxford university, New Delhi



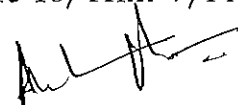
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Reference Books:

- Brealey & Myers (2012), "Principles of Corporate Finance", *Tata Mcgraw Hill*
- Prasanna Chandra (2012), "Fundamental of Financial Management", *McGraw Hill*

Term work: Case Studies / Assignments / Class Test/Presentation/Project



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Program : PGDM (Real Estate Construction and Management)				Trimester : V	
Course : Field Visits and Reports - II				Code : PDREM05006	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
-	2	-	1	-	Scaled to 50 marks
Objectives:					
<ul style="list-style-type: none"> • To understand practices at construction sites and in trade. • To acquaint students about scale and speed of construction projects. 					
Outcomes: At the end of this course, the students will be able to					
<ul style="list-style-type: none"> • Assess the processes in building design & construction and project delivery • Carry out an audit of the utilities with reference to the safety, testing and quality processes 					
Detailed Syllabus					
Unit	Topics: Three visits to any of the following				Duration (Hrs)
1.	Visit to building construction project				
2.	Visit to RMC plant.				
3.	Visit to Precast / Prefabrication manufacturing unit.				
4.	Visit to one township building construction project.				
	Total				20
Term work: Case Studies / Assignments / Class Test/Presentation/Project					



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Program : PGDM (Real Estate Construction and Management)				Trimester : VI	
Course : HRD and Professional Ethics				Code : PDREM06001	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks

Objectives:

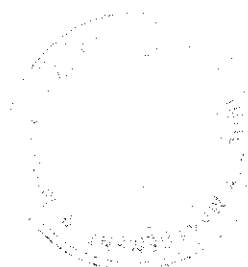
- To understand HRM, its scope and relationship with other social sciences
- To understand the interdisciplinary approach to Human Resource Development
- To create awareness on ethics and human values

Outcomes: After the successful completion of course, the students will be able to

- Understand the basics of HRD in business
- Access the HRD principles for business

Detailed Syllabus

Unit	Topics	Duration (Hrs)
1.	Organization of Personnel Functions: Personnel Department, Its Organization, Policies, Responsibilities and Place in the Organization.	02
2.	Manpower Planning: Manpower planning, Job Analysis, Job Description, Scientific Recruitment and Selection Methods.	03
3.	Rewards: Motivational Strategies, Incentive Schemes, Job enrichment, Empowerment, Job Satisfaction, Morale, Personnel Turnover.	03
4.	Performance Appraisal, Training & Development: MBO Approach, Performance Counseling, Career Planning, Identification of Training Needs, Training Methods, Management Development Programs.	04
5.	Organization Development: Organization Structures, Re-engineering, Multi-Skilling, BPR.	03
6.	Professional Ethics: Concept & elements, Morals & values, variety of moral issues, types of inquiry, moral dilemmas, moral autonomy, moral leadership Kohlberg and Gilligan's theories, theories about right action, concept of social responsibility for corporate, corporate governance.	03
7.	Global Issues: Multinational corporations, Environmental ethics , computer ethics , phone ethics	02



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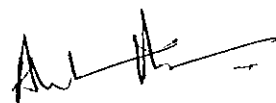
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	Total	20
Text Books: <ul style="list-style-type: none">• Aswathappa(2013), "Human Resource Management: Text and Cases", <i>TataMcGraw Hill</i>.• Dessler G.(2015), "Human Resource Management", <i>Pearson Publication</i>.		
Reference Books: <ul style="list-style-type: none">• Robbins S. (2013), "Organizational Behavior", <i>Pearson Publication</i>• Durai P. (2010), "Human Resource Management", <i>Dorling Kindersley</i>		
Term work: Case Studies / Assignments / Class Test/Presentation/Project		



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Program : PGDM (Real Estate Construction and Management)					Trimester : VI	
Course : Construction Logistics					Code : PDREM06002	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)	
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks	
Objectives:						
<ul style="list-style-type: none"> • To understand Supply Chain Management principles and application in present scenario • To understand Supply Chain Management in the Indian Industries through examples / case studies 						
Outcomes: At the end of this course students will be able						
<ul style="list-style-type: none"> • Understand SCM principles and challenges • Access various aspects of SCM 						
Detailed Syllabus						
Unit	Topics					Duration (Hrs)
1.	Introduction: Introduction to Supply Chain Management					02
2.	Logistics: Role of logistics in SCM, Integration of Logistics Operations.					03
3.	Structural Aspects of SCM: The five arms of Logistics Management, Transportation, Warehousing, Materials Handling, Information & Packaging					04
4.	Supply Chain Network: Design, Concepts.					03
5.	Infrastructure Aspects of SCM: Inventory management, Physical Distribution Management, co ordination in Supply Chain, Managing Information in Supply Chain, Bullwhip Effect, Strategic Alliances & Partnership in Supply Chain, Vendor Managed Inventory (VMI).					04
6.	Case Studies: Logistic Management & SCM in Industries like Discrete Manufacturing Industry, Continuous Process manufacturing & Service Industry.					04
	Total					20



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Text Books:

- Gary Sullivan, Stephen Barthorpe, Stephen Robbins,(2010), "Managing Construction Logistics", *Wiley-Blackwell*
- Sunil Chopra & Peter Meindl (2007), "Supply Chain Management", *Prentice Hall*

Reference Books:

- GregerLundesjo,(2010), "Supply Chain Management and Logistics in Construction - Delivering Tomorrow's Built Environment", *Koganpage*
- David Sinchi Levi, Philip Kaminsky, Edith Simchi Levi (2009), "Designing & Managing The Supply Chain", *Tata MacGrawHill*.
- Stock & Lambert, (2000), "Strategic Logistics Management", *McGraw Hill Publishing Co.*
- Raghuram&Ragaraj (2000), "Logistics & Supply Chain Management : Cases & Concepts", *Macmillan India*
- Benjamin S. Blanchard (2003), "The Management of Business Logistics", *Thomson South Weaste*

Term work: Case Studies / Assignments / Class Test/Presentation/Project



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Program : PGDM (Real Estate Construction and Management)					Trimester : VI	
Course : Project Closure					Code : PDREM06003	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)	
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks	
Objectives: <ul style="list-style-type: none"> • To understand the procedures for closure of projects • To understand the various methods of keeping project records after completion 						
Outcomes: At the end of this course, the students will be able to <ul style="list-style-type: none"> • Understand closure formalities and maintain database for future reference • Access the evaluation of project completion. 						
Detailed Syllabus						
Unit	Topics					Duration (Hrs)
1.	Closure of Project: Verification of functions, performance and quality of all the final deliverables including inspection of various items of work / procurement done through external agencies to confirm achievements of the completion criteria of project processes and activities, ensuring resolution of all issues and change requests.					03
2.	Preparation of Project Completion Report: Documentation of status at project completion with respect to achievement of project purpose and goal; functions, performance and quality of final deliverables; variance between the project plan and actual results; handling of problems and change requests; project work process and status of compliance with contract, recording all unresolved issues / problems; report completion status to project teams, senior manager, stakeholders and planning department.					04
3.	Closure and Stakeholders: Handing over all deliverables related to the project to stakeholders, inspection by stakeholders; concluding all project activities with approval of stakeholders, releasing project staff and resources.					03



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4.	Closure in Real Estate : Formation of society, handing over of accounts, drawings and documents, conveyance, electricity connection, Occupation certificate and water connection, taxes paid receipts, conveyance of the total project to next group of owners	02
5.	Evaluation after project completion: Analyze variance between the project plan and actual results on the basis of indices defined during planning phase (related to project plan, execution, deliverables, achievements of project teams and staff), using data and documented information that has been recorded.	04
6.	Collecting Lessons Learnt: Organizing performance data collected during the course of project implementation and work with regard to committed man hours allocated quantity of resources, work period, quality, costs, risks, scope change and various problems. Classification and calculation of data by activities, phases and project teams. Analysis of variance between the plan and actual performance. Compilation of data base for the analysis results including project evaluation results	04
	Total	20
Text Books:		
<ul style="list-style-type: none"> • Chitkara K.K. (2010), "Construction Project Management : Planning, Scheduling & Controlling", <i>Tata McGraw Hill</i> • Gahlot P.M. and Dhir B.M. (2007), "Construction Planning and Management", <i>New Age International</i> 		
Reference Books:		
<ul style="list-style-type: none"> • Dennis Lock (2013), "Project Management", <i>Grower</i> • John M Nicholas (2008), "Project Management for Business and Technology (Principles & Practice)", <i>Pearson</i> • C. Gray and E. Larson (2011), "Project Management : The Managerial Process", <i>Mcgraw Hill</i> • Jha Kumar Neeraj (2011), "Construction Project Management", <i>Pearson Publications</i> 		
Term work: Case Studies / Assignments / Class Test/Presentation/Project		



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SVKM'S NMIMS
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Program : PGDM (Real Estate Construction and Management)				Trimester : VI	
Course : Elective I - Capital Market & Real Estate				Code : PDREM06004	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks

Objectives:

- To understand the basics of capital market.
- To understand the various tools and techniques used for analysis of capital in real estate

Outcomes: At the end of this course students should be able to

- Understand the basics of capital markets
- Access the various scenarios of capital market and real estate

Detailed Syllabus

Unit	Topics	Duration (Hrs)
1.	Capital Markets: Globalization of capital markets, impact on real estate finance and investment, institutional investors, portfolio investment	03
2.	Capital Market Theory: Capital theory and trade-offs over time, financial markets and economic efficiency, discounting, present value ,compound interest	04
3.	Market Strategies: Financial Markets, Investment strategies, market hypothesis, innovations, Tobin's Q, Portfolio selection. Investment Criteria, Present value, internal rate of return	05
4.	Capital Asset Pricing Theory: Asset allocation strategies, Risk Diversification, Multi Asset Portfolios, Benefits of Capital Market Integration	04
5.	Capital in Real Estate: Development of Real Estate Investment, Trusts (REIT) industry, Development of Market for Real Estate, Debt Securities.	04
	Total	20



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Text Books:

- Nathan S. Collier, Courtland, A Collier, Don A Halperin, (2007), "Construction Funding", *John Wiley & Sons, Inc.*
- Brueggeman, Fisher (2010), "Real Estate Finance & Investment", McGraw Hill

Reference Books:

- Richard B Peiser with Anne B Frej,(2007), "Professional Real Estate Development", *ULI-The Urban Land Institute*
- Gary W Eldred,(2008), "The Beginner's Guide to Real Estate Investing", *John Wiley & Sons, Inc.*

Term work: Case Studies / Assignments / Class Test/Presentation/Project



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SVKM'S NMIMS
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Program : PGDM (Real Estate Construction and Management)				Trimester : VI	
Course : Elective I – Value Management				Code : PDREM06005	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
2	-	-	2	Scaled to 70 marks	Scaled to 30 marks

Objectives:

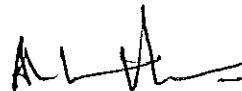
- To understand basics principles of Value Management
- To understand tools and techniques used for Value Management

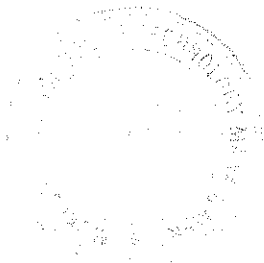
Outcomes: After successful completion of this course, students will be able to

- Understand the concepts of Value Management
- Access various tools and techniques used in Value Management

Detailed Syllabus

Unit	Topics	Duration (Hrs)
1.	Introduction Definitions: Value, value analysis, value management, background & history of value engineering, habits, roadblocks & attitudes and their relation to value engineering	03
2.	Job Plan Various versions of job plan, phases of job plan: information, creative, analytical, investigation, recommendation, implementation	03
3.	Function Analysis Function & its role in achieving value, function in terms of its cost & worth, Graphical function analysis: function analysis system technique	03
4.	Creative thinking Definition, creative people, creative processes, conducting creative session	03
5.	Life cycle costing Definition, purpose & implications, economic principles for life cycle costing, types of life cycle costs.	03
6.	Energy Energy resources & consumption, energy cost escalation, sources of energy supply, end use of energy, energy embodiment of construction materials, buildings, infrastructures facilities & energy systems,	03





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	energy models, factors affecting energy consumption, impact of maintenance on energy saving.	
7.	Value engineering case studies	02
	Total	20

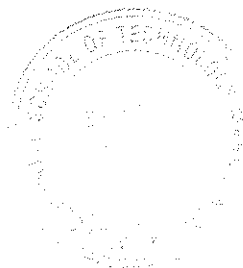
Text Books:

- Zimmerman & Hart, (1999), "Value engineering - A practical approach for owners, designers & contractors", *CBS Publishers*
- O'brien, J J, (1986), "Value analysis in design & construction", *McGraw Hill*

Reference Books:

- Dell'Isola A. J. , (1992), "Value Engineering in the Construction Industry", *Construction Publication Co.*

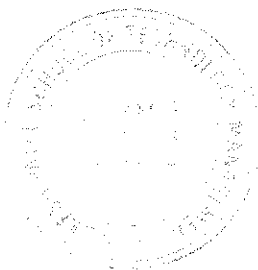
Term work:Case Studies / Assignments / Class Test/Presentation/Project



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SVKM'S NMIMS
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Program : PGDM (Real Estate Construction and Management)					Trimester : VI	
Course : Elective II - Facilities Management					Code : PDREM06006	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)	
3	-	-	3	Scaled to 70 marks	Scaled to 30 marks	
Objectives: <ul style="list-style-type: none"> • To understand basic principles of facilities management • To understand techniques of facilities management 						
Outcomes: After successful completion of this course, students will be able to <ul style="list-style-type: none"> • Understand the basics of facilities management • Access the facilities management schemes 						
Detailed Syllabus						
Unit	Topics					Duration (Hrs)
1.	Facilities Management: Types, mechanisms and analyses of deterioration of concrete and steel structures, approaches and means of damage assessment, assessing structural stability and integrity of existing structures, development of sound strategy for repair and restoration. Protection and repair materials, techniques, design and economic aspects.					06
2.	Introduction to built facility management Need, functional planning, workspace ecology, worker productivity, space planning, needs analysis					04
3.	Property maintenance Maintenance planning, support services, obsolescence and refurbishment, outsourcing					05
4.	Facility performance audit Premises audit, health & safety, whole life assessment.					05
5.	Financial aspects Budgets, budgetary control depreciation.					05
6.	Disaster recovery plans					03
7.	MIS for facility management					02
	Total					30



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Text Books:

- Butterworth, Heinemann,(1997), "Facilities Management -Theory & Practice", *E & F N Sons*
- Atkins & Book,(2009), "Total Facilities Management", *Blackwell Science*

Reference Books:

- Craig Langston & Rima LaugeKristensen (2011),"Strategic management of built facility", *Routledge Taylor & Francis Group*

Term work: Case Studies / Assignments / Class Test/Presentation/Project



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SVKM'S NMIMS
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Program : PGDM (Real Estate Construction and Management)				Trimester : VI	
Course : Elective II - Real Estate Valuation				Code : PDREM06007	
Teaching Scheme			Evaluation Scheme (Marks & Weightage)		
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
3	-	-	3	Scaled to 70 marks	Scaled to 30 marks

Objectives:

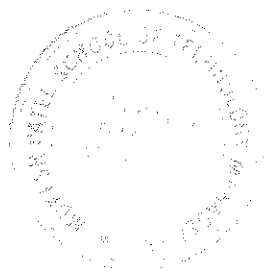
- To understand the basics of real estate valuation and tools and techniques used.
- To understand the property portfolio analysis

Outcomes: After completing this course, students should be able to

- Understand the tools and techniques used in real estate valuation.
- Access the property portfolio analysis.

Detailed Syllabus

Unit	Topics	Duration (Hrs)
1.	Various Purpose of Valuation: Fiscal, Stamp duty on transfer of property, Municipal Taxation, Rating Principles and important judgments, area basis of taxation, Ratable Value, Annual Letting Value, Direct Tax Acts, Income Tax including capital gains, Wealth Tax, Court fees including probate and partition Non-Fiscal, Bank Finance and securitisation, Auction reserve, Compulsory acquisition, Insurance, Sale, Purchase, Betterment levy, Standard, fair rent under rent law	06
2.	Valuation of Special Types of Properties: Hotels, Cinema, Petrol Pump, Hill station properties, Time shared property. Heritage Properties, Green Buildings.	03
3.	Valuation: Valuation of transferable development rights, easement rights, life interest, Redevelopment Projects.	03
4.	Valuation of Properties: forcible or unauthorized occupancies	03
5.	Valuation for Financial Statements: Accounting Treatment of Reserve created by Revaluation of Assets.	03
6.	Valuation Techniques: Introduction to Valuation Tables, discounted cash flow (D.C.R) technique, I.R.R., N.P.V., Layer approach, Ellwood approach, equitable yield and equated yield.	05



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7.	Property Portfolio Analysis: Effects of legislation on valuation : rent control law, town planning law etc., Elementary considerations in valuation of plantation, forest, orchards, queries, intangible assets like goodwill, royalty rights etc., ecological services valuation	05
8.	Role of a Valuer: Valuer's role, functions and responsibility. Code of ethics for valuers.	02
	Total	30

Text Books:

- Roshan H. Namavati (2010), "Theory and Practice of Valuation", *Jain Book Depot*
- D.N. Banerjee (1998), "Parks Valuation" , *Eastern Law House, Calcutta*

Reference Books:

- Richard M.Betts& Silas J. Ely(2007), "Basic Real Estate Appraisal", *Publications of American Society of Appraisers, P.O. Box 17265, Washington DC 200 41*
- "Harrison's Illustrated Dictionary of Real Estate Appraisal" (1998), *Publications of American Society of Appraisers, P.O. Box 17265, Washington DC 200 41*
- Jack P. Friedman and Nicholas Ordway (2010), "Income Property Appraisal and Analysis", *Publications of Appraisal, North Michigan Avenue, Chicago, ILL - 60611-4088, USA*
- "Readings in Real Estate Valuation", *Publications of Appraisal, North Michigan Avenue, Chicago, ILL - 60611-4088, USA*
- "The Appraisals of Real Estate", *Publications of Appraisal, North Michigan Avenue, Chicago, ILL - 60611-4088, USA*
- MaurySeldin& James H. Boykin (1989), "The Real Estate Handbook", *Irwin Professional Publishers*
- Johnson, Britton &Daries (1989),"Modern Methods of Valuation 8th Edition", *Estate Gazette Publication*
- Roshan H. Namavati (1998), Valuation Relating to Standard Rent, *Universal*

Term work: Case Studies / Assignments / Class Test/Presentation/Project

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Program : PGDM (Real Estate Construction and Management)				Trimester : VI	
Course : Internship				Code : PDREM06008	
Teaching Scheme				Evaluation Scheme (Marks & Weightage)	
Lecture Hours Per week	Practical Hours Per week	Tutorial Hours Per week	Credit	Theory (3 Hrs, 70 Marks)	Internal Continuous Assessment (ICA) as per Institute Norms (50 Marks)
-	18	1	10	-	Scaled to 50 marks
Objectives					
<ul style="list-style-type: none"> To study and understand various aspects of construction through practical interactive sessions at site. 					
Outcome					
<ul style="list-style-type: none"> After successful completion of this course, students will be able to explain the construction practices used on site and relate with the classroom training. 					
Detailed Syllabus					
Unit	Topic				Duration (Hrs)
1.	For students working in Real estate/Construction organization- Problem areas in his organization to be identified and accordingly presentations are to be made. For students working in different organization- Arrangements have to be made for weekly visits to real estate/ construction organization and problem areas in this organization to be identified and accordingly presentations are to be made.				190
	Total				190
Term work: Case Studies / Assignments / Class Test/Presentation/Project					



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