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UNIVERSITY OF MYSORE

Established: 1916

Vishwavidyanilaya Karyasoudha
Crawford Hall, Mysore-570 005

No.AC.2(S)/151/2021-22

Dated: 18.08.2021

NOTIFICATION

Sub: Changes of Syllabus, Curriculum of 2nd year (3rd and 4th Semester) (CBCS) Master of Architecture (Urban Design) for the candidates admitted during the academic year 2020-21.

Ref: 1. Decision of Board of Studies in Urban & Regional Planning (UG & PG) meeting held on 17.12.2020.
2. Decision of the Faculty of Science & Technology Meeting held on 08.02.2021.
3. Decision of the Academic Council meeting held on 07.04.2021.

*****

The Board of Studies in Urban & Regional Planning (UG & PG) which met on 17.12.2020 has approved the changes of Syllabus, Curriculum of Master of Architecture (Urban Design) 2nd year (3rd and 4th Semester) (CBCS) for the candidates admitted during the academic year 2020-21.

The Faculty of Science and Technology and Academic Council meeting held on 08.02.2021 and 07.04.2021. respectively have approved the above said proposal and the same is hereby notified.

The detailed Syllabus of this course is annexed. The contents may be downloaded **from the University Website i.e., www.uni-mysore.ac.in**.

DRAFT APPROVED BY THE REGISTRAR

18/8

DEPUTY REGISTRAR (ACADEMIC)

Deputy Registrar (Academic)
University of Mysore
Mysore-570 005

To:

1. The Registrar (Evaluation), University of Mysore, Mysore.
2. The Dean, Faculty of Science & Technology, DoS in Psychology, MGM.
3. The Chairperson, BoS in Architecture (UG & PG), School of Planning and Architecture, Manasagangotri, Mysore.
4. The Director, School of Planning and Architecture, Manasagangotri, Mysore.
5. The Deputy/Assistant Registrar/Superintendent, AB and EB, UOM, Mysore.
6. The P.A. to the Vice-Chancellor/Registrar/Registrar (Evaluation), UOM, Mysore.
7. Office file.

ANNEXURE - II

SCHOOL OF PLANNING AND ARCHITECTURE

UNIVERSITY OF MYSORE
ESTD-1916

Curriculum for III-IV Semesters
Master of Architecture
(Urban Design)
Academic year 2020-21

CHOICE BASED CREDIT SYSTEM (CBCS) 2020-21 Batch

SCHEME OF TEACHING AND EXAMINATION FORM. Arch (Urban Design)

SEMESTER-III

Sl No	Subject Code	Title of the subject	Scheme of Teaching Periods per week				Scheme of Examination			C	Mode of Exam
			L	S	P	Total	I	E	Total		
1	UDP 31	Professional Training	8 weeks in an Architectural & Urban design firm				100	100	200	3	Jury (Viva - Voce)
2	UDC 32	Urban Design Studio - III		12		12	100	100	200	12	Jury
3	UDC 33	Urban Conservation and Renewal	3			3	50	50	100	3	Written (2 hrs)
4	UDC 34	Urban Governance and Project Finance	3			3	50	50	100	3	Written (2 hrs)
5	UDC 35	Thesis Seminar			3	3	100		100	3	Prog. Marking
		Total				**21**				**24**	

SEMESTER-IV

Sl No	Subject Code	Title of the subject	Scheme of Teaching Periods per week				Scheme of Examination			C	Mode of Exam
			L	S	P	Total	I	E	Total		
1	UDC 41	Thesis		15		15	200	100	300	15	Jury (Viva - Voce)
2	UDE	**Elective -III**	02			02	50		50	03	Prog. Marking
		Total				**17**				**18**	

CHOICE OF ELECTIVES FOR SEMESTER IV

Sl No	Subject Code	Title of the subject	Scheme of Teaching Periods per week				Scheme of Examination			C	Mode of Exam
			L	S	P	Total	I	E	Total		
2	UDE 42	Urban Projects and System Management	02			02	50		50	02	Prog. Marking
	UDE 43	Real estate and land management in urban design	02			02	50		50	02	Prog. Marking
	UDE 44	Urban form, Climate and Environment	02			02	50		50	02	Prog. Marking

UDC: Urban Design Core Course,
UDS: Urban Design Supporting Course,
UDP: Urban Design Professional Training,
UDE: Urban Design Elective Course

L – Lecture
S – Studio
P- Practical
I – Internal Examination
E – External Examination
C- Credits

SEMESTER-III

Subject: Professional Training		
Code: UDP 31	**Credits: 3**	**Hours/ Week: -**
Progressive Marks: 100	**Examination Marks: 100**	**Mode of Exam: Jury (Viva - Voce)**

Aim:

An exposure to the various aspect of professional practice in an Architectural/ Urban Design firm or any planning organization.

Objective:

1. An understanding of general functioning of an office.
2. Exposure to various scales of Urban Design Projects from master planning to sector/ neighborhood layout and gain knowledge on stipulations, rules & regulations.
3. Exposure to Research Projects, Documentation, various types of Survey etc.

Outline:

The student is expected to work in an architectural/Urban design firm or Planning Organizations handling the following types of projects;

a) Large scale architectural projects like college/university campus, industrial Estates, commercial complexes, housing complexes, entertainment complexes etc. involving a number of Blocks, site planning and landscaping,
b) Architectural projects with focus on heritage conservation in an urban area.
c) Urban infill projects
d) Revitalization projects of decaying parts of the city.

Course Outcome:

On successful completion of this course the students will be able to**:**

- Acquaint themselves with knowledge on general functioning of government and private organisations
- Get an exposure to various scales of Urban Design Projects from master planning to sector/ neighbourhood layout planning process
- Gain knowledge on stipulations, rules & regulations.

Note: The eight weeks (56 days) should immediately precede the commencement of regular course work of third semester.

Subject: Urban Design Studio -III		
Code: UDC 32	**Credits: 12**	**Hours/ Week: 12**
Progressive Marks: 100	**Examination Marks: 100**	**Mode of Exam: Jury (Viva - Voce)**

Aim:

The studio exercise will focus on designing a larger scale new town which is integrated with the main city. The exercise also involves developing policy and guidelines for the new development.

Objective:

- To acquire skills of Master planning of larger scale new towns using Planning guidelines and various building codes.
- To understand the role of various interest groups and stake holders in the realization of an urban design scheme and develop exclusive policies and guidelines for the new development.

Conducted over one semester, Studio III normally consists of urban design projects with progressively larger scale and complexity, which aims to: (a) enhance and further develop the students' analytical and design ability for handling real-life urban development, renewal and/or re-development projects; (b) prepare the students for conducting more advanced studies leading to large, comprehensive urban design schemes. The project shall end in a Master planning of a new town integrated with the main city.

Project proposals shall be divided into two phases in which a policy and guideline evolution shall follow the actual design project. The project would also involve a) identification of various stake holders and their role in policy level guidelines, and b) working and illustrating the economic feasibility and infrastructure development needed for implementation of proposal.

Course Outcome:

On successful completion of this course the students will be able to**:**

- Acquire skills of Master planning of larger scale new towns using Planning guidelines
- Appreciate the role of various interest groups and stake holders in the realization of an urban design schemes
- Develop exclusive policies and guidelines for the new development.
- Conduct more advanced studies leading to large, comprehensive urban design schemes.

Reference:

1) Sendich, Emina, *Planning and Urban Design Standar*ds; American Planning Association, John Wiley and Sons Inc, New Jersey, 2006.

Subject: Urban Conservation and Renewal		
Code: UDC 33	**Credits: 3**	**Hours/ Week: 3**
Progressive Marks: 50	**Examination Marks: 50**	**Mode of Exam: Written**

Aim:
To introduce students urban conservation and their applications in professional practice through interventions.

Objective:
- To sensitize students on complexity of issues prevalent in historic urban areas
- To equip them to address these issues sensibly and with responsibility.

Outline:
Unit-I: Introduction to conservation of historic zones, inner city areas and world heritage sites. Concepts of conservation in India and other countries. Case studies of urban renewal, adaptive reuse and Brown Field projects in India and abroad.

Unit-II: Heritage tourism and conservation, Socio-Economic development, tourism infrastructure development, and role of urban development.

Unit-III: Institutional aspects of conservation- Charters, World heritage legislation and sites, Conservation Acts and legislation and available institutional frame work of conservation in India, Importance of Charters, Archaeological Acts, Conservation Acts and Legislation

Unit-IV: Conservation area practice, adaptive reuse, up gradation programs in old areas, infill design and regeneration of inner city areas, Development strategies for regeneration of inner city areas, recycling and renewal.

Unit-V: Conservation management, community participation, economic regeneration, financing and implementation of frame work for redevelopment and revitalization projects. Infrastructure up gradation, economic regeneration, financing and management of urban renewal schemes.

Unit-VI: Principles of conservation and successful practices in conservation in India and abroad. Case studies in India and abroad to illustrate the above mentioned concepts and approaches.

Course Outcome:
On successful completion of this course the students will be able to**:**
- Demonstrate understanding on complexity of issues prevalent in historic urban areas
- Equip themselves to address the issues sensibly and with responsibility
- Highlight heritage tourism and conservation, socio-economic development, tourism infrastructure development and role of urban development.
- Develop strategies for regeneration of inner city area, recycling and renewal.

References:

1. Cohen Nahoum, *Urban Conservation*; The MIT Press February 5, 1999
2. Bandarin Francesco, *The historic urban landscape: Managing Heritage in an Urban Century*; Wiley, 2012.
3. Kong Lily, *Conserving the past, creating the future: Urban Heritage in Singapore;* URA, 2011.
4. Feilden, Bernard M. and Jokilehto, Jukka, *Management Guidelines for World Cultural Heritage Sites. Rome: ICCROM*,1998.
5. Tandon, Rajeshwari, *A Case for National Policy for Heritage Conservation & Management. New Delhi: INTACH*, August 2002.
6. Feilden, Bernard.,*Guidelines for Conservation: A Technical Manual. New Delhi: Indian National Trust for Art and Cultural Heritage (INTACH), 1989*.
7. Indian National Trust for Art and Cultural Heritage (INTACH), Architectural Heritage Division, New Delhi. *Conserving the Heritage of Our Historic Cities*: Pre Seminar Working Document. New Delhi: INTACH, 1999.
8. Bisht, A.S., et al., *Conservation of Cultural Property in India*. Agam Kala Prakashan, Delhi, 2000.
9. Picard, Gilbert Charles., *Encyclopedia of Archeology*. Chancellor Press, London, 1983.

Subject: Urban Governance and Project Finance		
Code: UDC 34	**Credits: 3**	**Hours/ Week: 3**
Progressive Marks: 50	**Examination Marks: 50**	**Mode of Exam: Written**

Aim:

Introduction to the mechanism of governance and fiscal foundations of urban development.

Objective:

1. To sensitize students about the concepts, principles and structure of urban governance.
2. To equip them with an understanding of Participatory governance, Finance mechanisms, revenue generation and budgeting of urban projects, project cycle, identification, selection, preparation, appraisal, monitoring and evaluation.

Outline:

Unit-I: Basic concepts of urban governance and definitions. Principles of governance of urban areas. Local administration, Central and State system of local administration. Structure of local bodies and their role in urban governance, plan making and implementation. Recent amendments to constitution and their implication on governance. Concepts of capacity building and related issues of development of man power.

Unit-II: People's participation- theories, concepts and methods. Participatory governance meaning, processes and methods. Role of people's participation in plan making. People, NGO and civil society and urban development.

Unit-III: The economics of geographical concentration -urbanization, history of urbanization, agglomeration economics, and simple theory of inter urban location, location decision of household.

Unit-IV: Finance mechanisms of local administration. Various forms of revenue generation and budgeting. Innovations in methods of revenue generation.

Unit-V: Types of urban projects, project cycle, identification, selection, preparation, appraisal, monitoring and evaluation.

Course Outcome:

On successful completion of this course the students will be able to**:**

- Gain insight on various concepts, principles and structure of urban governance.
- Equip knowledge on various mechanisms of municipal finances and revenue generation.
- Assess and audit municipal project management systems through case studies on innovative practices of ULB's.

References:

1. Maria Pinto, *Metropolitan City Governance in India*; Sage Publications, New Delhi.
2. John Abbott, *Sharing the City: Community participation in urban Management*;
3. Routlegde, Abingdon, 1996.
4. Jain R.B. *Public Administration in India, 21st Century challenges for Good Governance*; Deep and Deep Publications Pvt. Ltd, New Delhi.
5. Michael Bambarger and Eleanor Hewitt, *Monitoring and Evaluating Urbandevelopment Programmes*: A hand book for program managers. The World Bank,1988

Subject: Urban Design Thesis Seminar		
Code: UDC 35	**Credits: 3**	**Hours/ Week: 3**
Progressive Marks: 100	**Examination Marks: -**	**Mode of Exam: Progressive Marks**

Aim:
Prepare students to arrive at a conceptual framework for the Thesis**.**

Objective:
To serve as a forum to discover, frame and develop Thesis proposal.

Outline:

1. It is intended to help students to arrive at a conceptual frame work for the Thesis in the IV semester.
2. The final product of the Seminar shall be a proposal which will describe in detail the Thesis framework including literature review, objectives, and methodology.
3. The subject shall be run on a seminar format with presentation from students on issues related to their choice of Thesis topic.

Course Outcome:
On successful completion of this course the students will be able to**:**

- Write literature review, aims, objectives and methodology
- Identify and analyse the current urban issues of Indian cities
- Produce conceptual framework for the urban design thesis.
- Frame and develop urban design proposal.

SEMESTER-IV

Subject: Urban Design Thesis		
Code: UDC 41	**Credits: 15**	**Hours/ Week: 15**
Progressive Marks: 200	**Examination Marks: 100**	**Mode of Exam: Jury (Viva -Voce)**

Aim:

The aim is to synthesize curriculum, professional experience and contextual application to come up with a well-argued answer to the problem statement in the form of a design proposal.

Objective:

1. To make students aware of the various stages of preparing Urban design proposal.
2. Identifying current urban issues of Indian cities
3. To make students explore the different approaches to tackle the various issues and enquiry with respect to Indian cities and context

Outline:

The Thesis need to have two distinct stages. The first stage should be a detailed scholarly research on an issue (or set of issues) which has a bearing on urban development or a project with a clearly demonstrated methodology. The second stage generate design proposals and solutions to those identified urban design issues in a variety of urban settings; and demonstrate an ability to critique urban design propositions. Students can explore the following areas:

1. Large scale projects like college/university campus, industrial Estates, commercial complexes, housing complexes, entertainment complexes etc. involving a number of Blocks, site planning and landscaping,
2. Projects with focus on heritage conservation in an urban area.
3. Urban infill projects
4. Revitalization projects of decaying parts of the city.
5. Water front developments

Course Outcome:

On successful completion of this course the students will be able to**:**

- Prepare urban design proposal.
- Explore the different approaches to tackle the various issues and enquiry with respect to Indian cities and context
- Generate design proposals and solutions to those identified urban design issues in a variety of urban settings
- Demonstrate an ability to critique urban design propositions on urban scale projects.

Subject: Urban Projects and System management		
Code: UDE 42	**Credits: 3**	**Hours/ Week: 2**
Progressive Marks: 50	**Examination Marks: -**	**Mode of Exam: Progressive Marks**

Aim:

Introduction to large urban design and development projects and their management principles in India.

Objective:

1. To teach the importance of project planning and its role in management
2. To educate the students of the various methodologies, policies and financial frameworks

Outline:

Unit-I: Introduction to project planning, theories, concepts and management, Overview of the various methodologies of planning, Project formulation, definition, Norms, standards, aspects and methods of project appraisal.

Unit-II: Concepts of Project management, systems, frameworks and techniques

Unit-III: Implementation strategies, scheduling, activities, progress reviews, corrective actions etc

Unit-IV: Economic and financial feasibility concepts and methods, Project funding, economic feasibility and methods of recovery, Mandatory legal and environmental approvals

Unit-V: Special projects such as Special economic zones, export processing zones, townships etc. Case studies of successful projects and planning schemes are encouraged to be used as learning models.

1. John G. Schoon, *Transportation Systems and Service Policy: A Project-Based Introduction*; Springer science +Business Media, B.V
2. *Water Sensitive Urban Design*; Book 2, Planning and Management
3. AnttiAhlava, Harry Edelman, *Urban Design Management: A Guide to Good Practice*; Taylor and Francis,2008
4. Hiroshi Kishida, MorioUdsuki, John Blakeney, *Urban Development Strategy and Project Management: Challenge of Minato Mirai 21*; Hiroshi Kishida,2011
5. Richard Lambeck, John Eschemuller, *Urban Construction Project Management*; McGraw-Hill Construction Series

Course Outcome:

On successful completion of this course the students will be able to**:**

- Overview various methodologies of planning, norms and standards
- Implement strategies scheduling activities, progress, reviews, etc.
- Demonstrate understanding on the importance of project planning and its role in management
- Acquaint with various methodologies, policies and financial frameworks

Subject: Real Estate and Land management in Urban Design		
Code: UDE 43	**Credits: 3**	**Hours/ Week: 2**
Progressive Marks: 50	**Examination Marks: -**	**Mode of Exam: Progressive Marks**

Aim:

Study the main economic forces that lead to the existence of cities and regional agglomeration.

Objective:

1. Discuss the problems in measuring these urban characteristics, the methodologies to do it, as well as the design of optimal urban policy.
2. Study the economic theory and evidence on the internal structure of cities together with the urban and housing policies that can enhance urban living

Outline:

Unit-I: Real Estate Development & Project Financing

Fundamental Concepts and Techniques, recognizing institutional and entrepreneurial elements, issues encountered in various phases of development like site evaluation and land procurement, development team assembly, market study and development scheme, project feasibility , development financing, Asset disposal and redevelopment options, Analysis of development sites and case studies, integrated case study on a specific development project, which requires reviewing, analyzing, and resolving the problems or strategic issues.

Unit-II: Urban Policy and Real Estate Markets

Impact of Government regulations and Public policies on real estate markets, Location and rents: the indifference principle, Submarkets and land use segregation, community and neighborhood dynamics, degeneration and renewal in urban dynamics, private public participation and government policies on public and private housing.

Unit-III: Office Location: Edge Cities; The office market and the labor market, Theories of multiple centered cities, Agglomeration and clustering, commercial land market.

Unit-IV: Retail Development; Retail travel patterns and the distribution of stores, Pricing and spatial competition, Shopping centers and store clustering.

Unit-V: Local Government and Land Markets; Property taxes, public expenditure, and local services, Community choice, "capitalization", and income segregation, the fiscal incentives for land use regulation.

Course Outcome:

On successful completion of this course the students will be able to**:**

- Study the economic theory and evidence on the internal structure of cities together with the urban housing policies
- Learn fundamental concepts and techniques in real estate development and project financing
- Exhibit critical thinking skills on public and private partnerships and government policies on public and private housing.
- Reflect critically on property taxes, public expenditure and local services

References:

1. Arnott, R., ed., *Regional and Urban Economics, Volume 1-2*; Harwood Academic Publishers, 1996
2. Fujita, M.,*Urban Economic Theory: Land Use and City Size;* Cambridge University Press,1989.
3. Fujita, M., Thisse, J.F., Economics of Agglomeration, Cambridge University Press,2002.
4. Papageorgiou, Y., Pines, D., *An Essay on Urban Economic Theory*, Springer,1999.
5. Tolley, G., Diamond, D. (eds.), *The Economics of Urban Amenities*, Academic Press,1982.
6. *Handbook of Regional and Urban Economics*, Volume 1-4.
7. *Barron's real estate handbook V edition*; Haupauge, NY, Baron, 2001

Subject: Urban Form, Climate and Environment		
Code: UDE 44	**Credits: 3**	**Hours/ Week: 2**
Progressive Marks: 50	**Examination Marks: -**	**Mode of Exam: Progressive Marks**

Aim:

The course will provide practical knowledge and skills in the development of designs supporting sustainability in the urban built environment. The main goal is to gain knowledge and understanding of the design challenges involved in creating a more ecologically based city considering natural and built elements in the design process. The course will contribute to knowledge and skills about sustainable urban development in a changing built environment. Hereby the students obtain competencies in engineering solutions to guide the city through a sustainable transformation.

Objective:

1. To make students familiar to the dynamics of the urban climate and its effects on the built environment.
2. Acquire knowledge on potential resources in the contemporary built environment for finding sustainable engineering and design solutions.

Outline:

Unit-I: Introduction to various natural sources of energy. causes, development, and effects of climate change from global to local scale, the transformation of the built urban environment, techniques for sustainable development, densification, climate adaptation and social inclusivity.

Unit-II: Climate and Built environment: Natural-scientific principles of energy and environmental processes. Kinetic and potential energy; the First and Second Laws of thermodynamics; heat transfer including radiation, conduction and convection. Street orientation, street canyon aspect ratio and sky view factor. The scientific principles governing geothermal and solar energy.

Unit-III: Fundamentals of wind movement and prevalent wind characteristics, Coriolis force, Windrose diagrams the scientific principles governing wind, Effect of Topography on Wind patterns, Ventilation and airflow principles, Windbreak, Airflow outside buildings, the relationship between environmental factors such as wind, sun and the urban form.

Unit-III: Fossil Fuels: The geological origins of fossil fuels and their uneven global distribution and depletion rates; Social and environmental consequences of fossil fuels, including the greenhouse effect and global warming, acid rain; the hazards and disposal of radioactive wastes. The scientific principles governing biomass and other sustainable form of energy and their implementation in city level.

Unit-V: Simulating and modeling Wind flows and solar radiation-Exposure to various energy simulation software in urban context. Create design proposals and experiments applying new information technologies and software for energy simulations.

Course Outcome:

On successful completion of this course the students will be able to**:**

- Demonstrate knowledge on the dynamics of the urban climate and its effects on the built environment.

- Acquire knowledge on potential resources in the contemporary built environment for finding sustainable design solutions.
- Gain knowledge on sustainable and ecological based city considering natural and built environment in design process.

References:

1. Kenneth S. Deffeyes *;Hubbert's Peak: The Impending World Oil Shortage*, Princeton, Princeton NJ, 2001.
2. David Goodstein;*Out of Gas: The End of the Age of Oil*, Norton, NY, 2004.
3. Hinrichs&Kleinbach; *Energy: Its Use and the Environment*, Fourth edition, Thompson Learning, 2005.
4. City And Wind ; *Climate As An Architectural Instrument*,MareikeKrautheim
5. OH Koenigsberger and others, *Manual of Tropical housing and building, Climatic design*; Universities press (India) Pvt Ltd.2014.