

SEMESTER-II

Urban Design Studio-II with UDPT			
Course Code	2MAUD201	Scheme	2026-27
Type of Course	PCC/IPCC	Semester	II
Teaching Hours/Week (L:T:P)	10 Hours/week	CIE Marks	50
Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	32:00:160:48=240	SEE Marks	50
Credits	08	Total Marks	100
Examination type (SEE)	VIVA VOCE	Exam Hours	20min /Candidate
Course outcome (Course Skill Set) The overall goal of this studio shall be to incorporate and test ideas inculcated in the parallel streams of theories and principles. Objectives shall be 1. To identify and categorize various non-formal issues which are relevant in the process of designing an urban environment 2. To understand the process of making a physical planning proposal viable with available techniques of financing and feasibility 3. To understand the role of various interest groups in the realization of urban design scheme.			
Studio Outline 1. The studio shall begin with documenting implemented urban design as a case in understanding the process followed in each of schemes. Documentation shall be intensive exercises with teams of two who will identify the project (across India) and illustrate the entire process of design as well review the present status of the project and realization of stated objectives. 2. The main studio project shall be chosen within an area of a city (or even a small city) which is undergoing rapid changes triggered by an identifiable event or policy. The studio shall debate the needs of conserving the overall character of the chosen area with an in-depth analysis on the social- cultural issues. Design of the proposed built element shall be preceded by a comprehensive urban design scheme which shall be detailed. Projects like; Tourism development; Conservation of Natural and Built Heritage; intervention in an urban area which has not been able to maintain its cultural moorings due to market forces shall be attempted. Teaching Learning Process: Lecture sessions, Site visits, Student presentations, Group discussions and presentation, Periodic Reviews, Workshops are part of the Teaching Learning Process			

Suggested Learning Resources: (Text Book/ Reference Book/ Manuals):

1. The Kinetic City & Other Essays, Rahul Mehrotra, ArchiTangle GmbH; 2021
2. The art of building cities: Camillo Sitte
3. Indian cities: Annapurna Shaw Oxford University press
4. Contesting the Indian City: Global Visions and the Politics of the Local: Gavin Shatkin: Wiley Blackwell
5. Sacred scapes and Pilgrimage systems- editor Rana P B Singh-Shubhi Publications
6. Housing & urbanization- Charles Correa
7. Urbanisation in early historic India-George Erdosy

Web links and Video Lectures (e-Resources):

1. <https://www.youtube.com/watch?v=wJwZ0ID06NM>
2. <https://www.youtube.com/watch?v=gOGdL7uaBGc>
3. <https://www.youtube.com/watch?v=xc4ayMUxuD4>
4. <https://www.youtube.com/watch?v=vTLCxny7YSg>
5. https://www.youtube.com/watch?v=TV21eP0uu_0
6. <https://www.youtube.com/watch?v=ITTyzy1dZ8s>

Suggested Learning Activities:

1. Study, research and place reading and representation techniques at region/city/precinct scale
2. Mapping the observation and inferring at region/city/precinct scale
3. Skills that enable analysis and identify the Urban design issues
4. Ability to program Urban design strategies and Design project

Assessment Structure:

The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) and the Semester End Examination (SEE), with each carrying 50% weightage.

- To qualify and become eligible to appear for SEE, in the **CIE**, a student must score at least **50 % of maximum Marks for CIE**,
- To pass the **SEE**, a student must score at least **40 % of Maximum marks for SEE**.

Notwithstanding the above, a student is considered to have **passed the course**, provided the combined total of **CIE and SEE** is at least **50 out of 100 marks**.

Continuous Internal Evaluation (CIE):

Continuous Internal Evaluation: Continuous Internal Evaluation will be based on Internal Reviews, External Reviews and Final Studio report and individual project Submission/VIVA VOCE

Semester End Examination (SEE):

Semester End Examination: Viva-voce: The viva voce shall be conducted for a duration of 20 minutes (per student) for the subjects listed under viva voce for all the semesters

Urban Conservation			
Course Code	2MAUD202	Scheme	2026-27
Type of Course	PCC	Semester	II
Teaching Hours/Week (L:T:P)	03Hours/Week	CIE Marks	50
Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42: 00 : 00: 48=90	SEE Marks	50
Credits	03	Total Marks	100
Examination type (SEE)	TH	Exam Hours	03
Course outcome (Course Skill Set) - Identify/Understand and demonstrate the policies/charters that influence urban fabric - Understand the conservation and related aspects through national and international projects at various scale. - The course is intended to introduce and to understand the various issues of urban conservation in terms of feasibility, community participation and heritage charters across the country.			
Module-1			
Introduction to conservation of historic and inner-city areas. Concepts of conservation in India and Understanding INTEGRATED HERITAGE MANAGEMENT for historic cities. Teaching Learning Process: Introduction to the course content through lectures and discussion Number of Hours:09			
Module-2			
Socio-Economic development, Tourism Infrastructure Development, and role of Urban Design in Understanding of CULTURAL LANDSCAPES, SACRED CITIES. Teaching Learning Process: Introduction to the course content through lectures and case study presentation Number of Hours:09			
Module-3			
Institutional aspects of Conservation- Charters, World heritage legislation and sites, Conservation Acts and legislation and available institutional frame work of conservation in India-New schemes of Government like HRIDAY for heritage cities, SMART CITIES. Teaching Learning Process: Introduction to the course content through lectures, discussion, debate and presentation Number of Hours:08			
Module-4			
Conservation area practice, Adaptive Reuse, up gradation programs in old areas, infill design and regeneration of inner-city areas. Teaching Learning Process: Introduction to the course content through lectures, discussion, debate and presentation Number of Hours:08			

Module-5 Conservation management, Community Participation, Economic Regeneration, Financing and Implementation of frame work for Redevelopment and Revitalization projects. Case studies in India and abroad to illustrate the above-mentioned concepts and approaches-Introduction to World Heritage Sites and Site Management Plans Teaching Learning Process: Introduction to the course content through lectures, discussion, debate and presentation Number of Hours:08
Suggested Learning Resources: (Text Book/ Reference Book/ Manuals): 1 Feildan Bernard, Conservation of Historic Buildings, Butterworth-Heinemann. 2 Fitch James, Historic Preservation- A Curatorial Approach, University Press of Virginia. 3. People-Centered Methodologies for Heritage Conservation: Exploring Emotional Attachments to Historic Urban Places (Critical Studies in Heritage, Emotion and Affect)by Rebecca Madgin and James Lesh 4. Equity in Heritage Conservation: The Case of Ahmadabad, India (Routledge Research in Architectural Conservation and Historic Preservation)by Jigna Desai 5. Sacredscapes and Pilgrimage systems- editor Rana P B Singh-Shubhi Publications.
Web links and Video Lectures (e-Resources): 1 https://www.youtube.com/watch?v=WOGfpZPl1VM&t=3361s 2 https://www.youtube.com/watch?v=LpL8tuIJgHY 3 https://www.youtube.com/watch?v=_5sTNavbbeQ 4 https://www.youtube.com/watch?v=Gath5_YVh8o
Suggested Learning Activities: 1. Site/city visit and mapping the observation related to urban conservation 2. Policy/ guidelines related to urban heritage conservation and impact on built. 3. Application of conservation management practice and stakeholder
Assessment Structure: The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) and the Semester End Examination (SEE), with each carrying 50% weightage. • To qualify and become eligible to appear for SEE, in the CIE, a student must score at least 50 % of maximum Marks for CIE, • To pass the SEE, a student must score at least 40 % of Maximum marks for SEE. Notwithstanding the above, a student is considered to have passed the course, provided the combined total of CIE and SEE is at least 50 out of 100 marks.

Continuous Internal Evaluation (CIE):

Continuous Internal Evaluation will be based on weekly assignments, site studies, class presentations, participation in seminar discussions and term paper / report submission.

Semester End Examination (SEE):

Theory examination shall be held for 3-hour duration, students are expected to answer five full questions, one question from each module

Contemporary Theories of Urbanism and Architecture

Course Code	2MAUD203	Scheme	2026-27
Type of Course	PCC	Semester	II
Teaching Hours/Week (L:T:P)	03Hours/week	CIE Marks	50
Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42: 00 : 00: 48=90	SEE Marks	50
Credits	03	Total Marks	100
Examination type (SEE)	TH	Exam Hours	03

Course outcome (Course Skill Set)

To expose the students to the current theoretical trends in architecture and urbanism, with focus on Western architecture but with cross reference to Contemporary Indian trends using relevant examples.

Module-1

Post Modernism and post functionalism. Post script to the modern movement. Semiotics and structuralism. Post structuralism and Deconstruction. (Eg. Works of Robert Venturi, Robert Stern, Charles Moore, Peter Eisenman, Bernard Tschumi, Zaha Hadid, Daniel Libeskind and similar architects with examples.)

Teaching Learning Process: Introduction to the course content through lectures, discussion, debate and case study presentation

Number of Hours:09

Module-2

Urban theory after Modernism, Contextualism, Main Street and beyond. Collage city and towards the contemporary city.

Teaching Learning Process: Introduction to the course content through lectures and discussion.

Number of Hours:09

Module-3

School of Venice, territory and architecture, an analogical architecture. Political and ethical agenda, the ethical function of architecture. (Vittorio Gregotti, Aldo Rossi). Teaching Learning Process: Introduction to the course content through lectures, discussion and debate Number of Hours:08
Module-4 Heidegger's thinking on architecture, a look at the phenomenology of architecture, Phenomenology and meaning of place. (Christian Norberg-Schulz, Juhani Pallasmaa, Spirit of Place and Indian temple towns and vernacular architecture). Teaching Learning Process: Introduction to the course content through lectures, discussion, debate and presentation. Number of Hours:08
Module-5 Critical regionalism, local culture and universal civilization. Tectonic expression. Brief review of the issues of Gender in architecture. City design examples such as Lutyens Delhi, Chandigarh, Bhubaneswar, Shantiniketan and Relevance of Postmodern theory in India. Teaching Learning Process: Introduction to the course content through lectures, discussion, debate and presentation Number of Hours:08
Suggested Learning Resources: (Text Book/ Reference Book/ Manuals): 1. Kate Nesbit, Theorizing a new agenda for architecture, Princeton Architectural Press, 1996. 2. Michael Hayes, Architecture Theory since 1968, MIT Press, London. 3. Kevin Lynch, Good City Form, MIT Press, London. 4. Bernd Evers, Architectural Theory From Renaissance to the Present, Taschen, Cologne, 2002. 5. Geoffrey Broadbent, Emerging Concepts in Urban Space Design, Taylor & Francis, 1995 6. Jon Lang, Concise History of Modern Architecture in India, Permanent Black, 2010 7. Dr. Solomon Benjamin, Urban Informality Shilpa Ranade, Gender and Space
Web links and Video Lectures (e-Resources): 1. https://www.youtube.com/watch?v=nBUq21iahpl&t=23s 2. https://www.youtube.com/watch?v=esPJRnKEyHU&t=11s 3. youtube.com/watch?v=aW4LY3iHJal 4. https://www.youtube.com/watch?v=0wLsMZ4tsQ&list=RDLVaW4LY3iHJal&index=5 5. https://www.youtube.com/watch?v=jgBU3yJD5d4 6. https://www.youtube.com/watch?v=8MK1vEQkego 7. https://www.youtube.com/watch?v=YsNpJp4DKTw
Suggested Learning Activities: The following skills with respect to urban and built form: 1. Critical Reading 2. Presentation of analysis 3. Identifying other relevant perspectives 4. Critique of urban and built form

Assessment Structure:

The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) and the Semester End Examination (SEE), with each carrying 50% weightage.

- To qualify and become eligible to appear for SEE, in the **CIE**, a student must score at least **50 % of maximum Marks for CIE**,
- To pass the **SEE**, a student must score at least **40 % of Maximum marks for SEE**.

Notwithstanding the above, a student is considered to have **passed the course**, provided the combined total of **CIE and SEE** is at least **50 out of 100 marks**.

Continuous Internal Evaluation (CIE):

Continuous Internal Evaluation will be based on weekly assignments, class presentations, participation in seminar discussions and term paper / report submission.

Semester End Examination (SEE):

Theory Examination shall be held for 3-hour duration, students are expected to answer FIVE full questions, one question from each module

Urban Governance and Project Finance			
Course Code	2MAUD204	Scheme	2026-27
Type of Course	PCC	Semester	II
Teaching Hours/Week (L:T:P)	03Hours/week	CIE Marks	50
Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42: 00: 00: 48=90	SEE Marks	50
Credits	03	Total Marks	100
Examination type (SEE)	TH	Exam Hours	03
Course outcome (Course Skill Set)			
1. Able to understand and distinguish the various concepts and definition, forms, power of administration systems of governance and its related structures. 2. Able examine and spatialize the roles, responsibilities and process of participation for better urban development within the existing policy framework. 3. Able to understand the economy, management of city information in planning and development 4. Abe to analyze the effective management of municipal finance 5. Demonstrate the complexity of finance and implementation of the urban development project.			
Module-1			

Concepts of urban governance and definitions: Federalism, principles of subsidiarity, decentralisation and state rescaling. Difference between Government and Governance, Different forms of government and their governance systems, Principles of governance of urban areas- history of Local administration, Structure of local bodies and their role in urban governance, Recent amendments to the Constitution and their implications on governance. Concepts of capacity building and related issues of development of man power. Central and State systems of local administration. Comparative analysis across states in India and internationally. Teaching Learning Process: Introduction to the course content through lectures, discussion and evaluation of real time spatialize the case studies Number of Hours:09
Module-2
Urban citizenship, representation and people's participation: Theories, concepts and methods. Participatory governance definition, processes and methods. People/NGOs/civil society and urban development, Role of people's participation in plan making. governance systems shape the urban environment and manage issues of urbanization and development-cases. Teaching Learning Process: Introduction to the course content through lectures, discussion and evaluation of real time case studies Number of Hours:09
Module-3
Economy and Development: history of urbanization, Analyse and interpret governance frameworks of development initiatives and interventions in economic perspective. Post-independent Indian economic development strategy: role of the state, non-state actors and economic institutions. (Legacy of centralization, decentralization of powers with 74 th CAA/Finance commission. The economics of geographical concentration and implications of urban governance, Peri urban situation, Importance of Geo-spatial data governance, custodianship of data, data sharing protocols: Institutions, Capacity, Data standards, Systems in economy and development Teaching Learning Process: Introduction to the course content through lectures, discussion and critical thinking Number of Hours:08
Module-4
Urban land as a resource: land as a revenue base, history and economics of urban land, land as an instrument to finance urban development, land-related financing instruments such as land value taxation, land development financing, and land value capture methods to finance planned urbanization in India. Finance mechanisms of local administration. Various forms of revenue generation and budgeting. Innovations in methods of revenue generation. Teaching Learning Process: Introduction to the course content through lectures, and discussion/comparative case studies. Number of Hours:08
Module-5
Types of urban development projects, project cycle, Project identification, selection, preparation, appraisal, monitoring and evaluation. Case studies Teaching Learning Process: Introduction to the course content through lectures, discussion, analysis and evaluation of real time urban projects Number of Hours:08
Suggested Learning Resources: (Text Book/ Reference Book/ Manuals):

Books/Book chapters:

1. Cities and Public Policy by P K Mohanty (Sage)
2. India's Urban Confusion Challenges and Strategies by M Ramachandran.
3. Urban Governance, Voice and Poverty in the Developing World by Ursula Grant, Nick Devas, Philip Amis.
4. Jain R.B. Public Administration in India, 21st Century challenges for Good Governance. Deep and Deep Publications Pvt. Ltd, New Delhi.
5. Ahluwalia, I. J. (2019). Urban governance in India. *Journal of Urban Affairs*, 41(1), 83–102. <https://doi.org/10.1080/07352166.2016.1271614>
6. Maria Pinto, Metropolitan City Governance in India, Sage Publications, New Delhi.
7. URDPFI vol I and II, Ministry of Housing and urban Affairs.
8. Stoker, G. (2018), Governance as theory: five propositions[†]. *International Social Science Journal*, 68: 15-24. <https://doi.org/10.1111/issj.12189>
9. Djelic M, Sahlin-Andersson K. Introduction: A world of governance: The rise of transnational regulation. In: Djelic M-L, Sahlin-Andersson K, eds. *Transnational Governance: Institutional Dynamics of Regulation*. Cambridge University Press; 2006:1-28.
10. Kaufmann, Daniel and Kraay, Aart and Zoido, Pablo, Governance Matters (August 1999). Available at SSRN: <https://ssrn.com/abstract=188568>
11. Rosenau, James N. "Governance in the Twenty-first Century." *Global Governance*, vol. 1, no. 1, 1995, pp. 13–43.
12. World Bank. (2025). Standards for better governance (Chap. 7). In *World Development Report 2025: Standards for Development* (pp. 309–343).
13. Arnstein, S. R. (1969). A Ladder Of Citizen Participation. *Journal of the American Institute of Planners*, 35(4), 216–224. <https://doi.org/10.1080/01944366908977225>
14. John Abbott, Sharing the City: Community participation in urban Management, Routledge, Abingdon, 1996.
15. Robert Chambers, "The Origins and Practice of Participatory Rural Appraisal,"; *World Development* 22, no. 7 (July 1994): 954-957. https://entwicklungspolitik.uni-hohenheim.de/uploads/media/Day_4_-_Reading_text_8_02.pdf
16. Narayanasamy, N. (2009). Participatory rural appraisal: Principles, methods and application. SAGE Publications India Pvt Ltd, <https://doi.org/10.4135/9788132108382>
17. O'Sullivan, Arthur. *Urban Economics*. 9th ed., McGraw-Hill Education, 2019.
18. Mohanty, P.K., et al. *Municipal Finance in India: An Assessment*. Reserve Bank of India, 2007. Development Research Group Study Series 26
19. Michael Bamarger and Eleanor Hewitt, Monitoring and Evaluating Urban development Programmes: A hand book for program managers. The World Bank, 1988.
20. Lakshmisha, Arvind and Nagendra Harini (2025) "When Urbanization Leads to Governance Beyond the State: Network of Actors Along an Urbanization Gradient in Bengaluru, India", *International Journal of the Commons*, Volume: 19 Issue: 1, <https://thecommonsjournal.org/articles/10.5334/ijc.1369> .

Web links and Video Lectures (e-Resources):

1. Evaluating the quality of public governance: indicators, models and methodologies
2. by Tony Bovaird and Elke Löffler <https://journals.sagepub.com/doi/10.1177/0020852303693002>
3. Governance and development by UN:
https://www.un.org/millenniumgoals/pdf/Think%20Pieces/7_governance.pdf
4. Transnational Governance and Democratic Legitimacy: A Conceptual Overview By Peter van Ham
[https://www.clingendael.org/sites/default/files/pdfs/Transnational%20Governance%20and%20Democratic%20Legitimacy%20\(conceptual%20overview\).pdf](https://www.clingendael.org/sites/default/files/pdfs/Transnational%20Governance%20and%20Democratic%20Legitimacy%20(conceptual%20overview).pdf)
5. Klijn, E., & Koppenjan, J. (2012). Governance network theory: past, present and future. *Policy & Politics*, 40(4), 587-606. Retrieved Jul 15, 2026, from <https://doi.org/10.1332/030557312X655431>
6. Public Management and Policy Networks: The Theoretical Foundation of the Network Approach to Governance by Erik-Hans Klijn and Joop F.M. Koppenjan,
https://pure.eur.nl/files/46600214/metis_039167_SAM.pdf
7. Rapid rural appraisal, participatory rural appraisal and aquaculture by Philip Townsley, Chapter 3:
<https://www.fao.org/3/w2352e/W2352E03.htm#ch3>

Suggested Learning Activities:

- The following skills with respect to urban governance and project finance
- Critical Reading
- Spatial understanding of city and governance
- Functioning of a city
- Identifying other relevant perspectives

Assessment Structure:

The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) and the Semester End Examination (SEE), with each carrying 50% weightage.

- To qualify and become eligible to appear for SEE, in the **CIE**, a student must score at least **50 % of maximum marks for CIE**.
- To pass the **SEE**, a student must score at least **40 % of Maximum marks for SEE**.
- Notwithstanding the above, a student is considered to have **passed the course**, provided the combined total of **CIE and SEE** is at least **50 out of 100 marks**.

Continuous Internal Evaluation (CIE):

Continuous Internal Evaluation will be based on assignments, presentation and submission.

Semester End Examination (SEE):

Theory Examination shall be held for 3-hour duration, students are expected to answer FIVE full questions, one question from each module.

Urban Management			
Course Code	2MAUD205A	Scheme	2026-27
Type of Course	(Professional Elective Courses-III)	Semester	II
Teaching Hours/Week (L:T:P)	03Hours/Week	CIE Marks	100
Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42:00:00:48=90	SEE Marks	00
Credits	03	Total Marks	100
Examination type (SEE)	NA	Exam Hours	NA
Course outcome (Course Skill Set)			
The course intends to help students understand and illustrate the complex challenges in the functioning of a city and develop their skills in addressing such complexities through efficient management of resources in the Urban Environment.			
Introduction: the students are introduced to Complexity theory and its relevance in urban planning, urban design (in creating city image) and other relevant management disciplines. The theory stresses the overlay of city management players such as the economy, infrastructure, people and nature. Topics such as sustainability and equity are introduced as a result of effective and efficient management system. The course will introduce theoretical understanding with case studies and encourage students to hands on experience under the following urban systems.			
1. People and the city: Human resource management – The role of people or citizens as primary stakeholders in managing a city, importance and relevance of participatory decision making explained through case studies. Theory of Informality and its associations with the city's life. Topics such as Livelihood, health, well-being and quality of life as prescribed by world organizations and a comparative analysis drawn to sensitize on India's scenario. The systems that involve fundamentals and effective management of Human resources in urban area including HR policies and Laws.			
2. Nature and the city: Natural resource management system – sustainability beyond greening, green Urbanism, urban form and sustainability, and other relevant topics that discuss the efficient and effective use of natural resources, significant stake holders in play and management strategies that recognizes developmental pressures, its impact on nature to suggest resilient solutions.			
3. Economy and the city: Urban finance management system - Understand fundamentals of urban finance, Effective and efficient budget in ULBs, financial planning and management. Understand the economic flows that bind development needs and people-centric solutions through case studies across the world. Assess India's scenario by dissecting into concepts of "competitiveness" and "Happiness"			

4. Urban project management system: Holistic management with equal importance even to the role of people/citizens, the natural systems of the context and the financial as well the development trajectories that trigger largely in decision making. Assessing Time management modules through evaluation and monitoring of ongoing small and large scale urban projects.

Teaching learning process: Lectures with case studies, Student discussions, Peer reviews, Workshops, Action Planning as a sub-course to procure real time data for ongoing urban challenges.

Suggested Learning Resources: (Text Book/ Reference Book/ Manuals):

1. Portugali, J. (2011). *Complexity, cognition and the city* (pp. 22-42). Berlin: Springer.
2. Bettencourt, L. M. (2015). Cities as complex systems. *Modeling complex systems for public policies*, 217-236.
3. Bettencourt, L. M. (2021). Introduction to urban science: evidence and theory of cities as complex systems.
4. Ahluwalia, I. J. (2014a). Improving our cities through better governance. London, England: LSE Cities
5. Ahluwalia, I. J., Kanbur, R., & Mohanty, P. K. (2014). Urbanisation in India: Challenges, opportunities and the way forward. New Delhi, India: Sage India
6. World Bank. (2012). Lessons from business plans for Maharashtra, Rajasthan, Haryana and international good practices. Washington, DC: Author.
7. Brosius, J.; Peter Tsing; Anna Lowenhaupt; Zerner, Charles (1998). "Representing communities: Histories and politics of community-based natural resource management". *Society & Natural Resources*.
8. Batty, M., & Marshall, S. (2012). The origins of complexity theory in cities and planning. In *Complexity theories of cities have come of age* (pp. 21-45). Springer, Berlin, Heidelberg.
9. Batty, M. (2016). Complexity in city systems: Understanding, evolution, and design. In *A planner's encounter with complexity* (pp. 99-122). Routledge.
10. Scott, A. & Storper, M., 2007. Regions, Globalization, Development. *Regional Studies*, 41(1), 191.
11. Campbell, S. (1996). Green cities, growing cities, just cities?: Urban planning and the contradictions of sustainable development. *Journal of the American Planning Association*, 62(3), 296-312.
12. Florida, R. (2005). THE WORLD IS SPIKY Globalization has changed the economic playing field, but hasn't leveled it. *Atlantic monthly*, 296(3), 48.
13. Feiock, R. C., Jae Moon, M., & Park, H. J. (2008). Is the world "flat" or "spiky"? Rethinking the governance implications of globalization for economic development. *Public Administration Review*, 68(1), 24-35.
14. Montgomery, C. (2013). *Happy city: Transforming our lives through urban design*. Penguin UK.
15. Lehmann, S. (2011). What is green urbanism? Holistic principles to transform cities for sustainability. *Climate Change-Research and Technology for Adaptation and Mitigation*, 243-266.

Web links and Video Lectures (e-Resources):

1. Poli-Plex-Icon: A tool for city image visualization in the age of complexity by Efrossyni Tsakiri in *The Urban Transcripts journal*, Volume 2, No.2, June 2020.
2. <https://journal.urbantranscripts.org/article/poli-plex-icon-a-tool-for-city-image-visualization-in-the-age-of-complexity-efrossyni-tsakiri/>

3. E-article on Bettencourt and Sahasranaman attempt the first detailed analysis of Indian cities as complex systems. March 14, 2019. journal article topic: Urban geography and scaling of contemporary Indian cities. <https://miurban.uchicago.edu/2019/03/14/bettencourtsahasranaman/>
4. Wilensky, U. (2007). NetLogo Urban Suite - Cells model. <http://ccl.northwestern.edu/netlogo/models/UrbanSuite-Cells> . Center for Connected Learning and
5. Computer-Based Modeling, Northwestern University, Evanston, IL.
6. The happy city experiment | Charles Montgomery | TEDxVancouver | 2014 <https://www.youtube.com/watch?v=7WiQUzOnA5w>
7. Fight of the Century - Keynes vs. Hayek - Round One (2010) and Two (2012)
8. <https://www.youtube.com/watch?v=d0nERTFo-Sk&t=392s>
9. <https://www.youtube.com/watch?v=LA1-1DIhuXU&t=298s>
10. Complexity, citizen engagement in a Post-Social Media time | David Snowden | TEDxUniversityofNicosia | 2018. <https://www.youtube.com/watch?v=JkJDyPh9phc>
11. TEDxRotterdam - Igor Nikolic - Complex adaptive systems | 2010. https://www.youtube.com/watch?v=jS0zj_dYeBE

Suggested Learning Activities:

1. Skills to understand cities as complex adaptive systems and decode the complex layers in the working of a city i.e., the economic, the physical, the social and the environmental.
2. Skills to prepare surveys for assessing urban issues/real time data as part of action planning.
3. Skills to map the stakeholders in play, the governance strategies arising from the complex layers and assessing them.
4. Access, analyze and interpret data to provide recommendation.

Assessment Structure:

The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) with carrying 100% weightage. To qualify and become eligible in the **CIE**, a student must score at least **50 % of maximum Marks for CIE**

Continuous Internal Evaluation (CIE):

Continuous Internal Evaluation will be based on Internal Reviews, Presentation, Quality of Discussion, Paper presentation, submission of Individual/Group work.

Semester End Examination (SEE): NA

Urban Infrastructure and Transportation Planning			
Course Code	2MAUD205B	Scheme	2026-27
Type of Course	(Professional Elective Courses-III)	Semester	II
Teaching Hours/Week (L:T:P)	03Hours/Week	CIE Marks	100
Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42:00:00:48=90	SEE Marks	00
Credits	03	Total Marks	100
Examination type (SEE)	NA	Exam Hours	NA
Course outcome (Course Skill Set) The elective <i>Urban Infrastructure and Transportation Planning</i> introduces the relationship between urban infrastructure, land use, urban form, and mobility systems. It focuses on integrated transport planning with multimodal mobility, introduction to Indian policies, standards, and urban design frameworks associated with infrastructure and transportation planning.			
Course Teaching-Learning Methodology The course adopts a blended teaching-learning methodology comprising lectures, case-study presentations, group discussions, debates, analytical exercises, and applied assignments. The initial theoretical inputs establish an understanding of urban form, infrastructure systems, land-use patterns, and the interrelationship between urban development and transportation. Case studies and discussions are used to contextualise concepts within Indian and international urban environments. The course progressively introduces transportation systems, street design, mobility, traffic engineering, transport planning, and the relationship between land use and transportation. Students engage with contemporary urban issues through comparative case studies, mapping, data interpretation, and critical discussions, enabling them to examine infrastructure provision, accessibility, mobility patterns, and urban development processes. The application-oriented component introduces students to transportation surveys, study-area delineation, zoning, transport demand modelling, four-step modelling, modal systems, and public transportation planning. These concepts are reinforced through analytical exercises and contextual assignments, enabling students to translate technical knowledge into integrated urban design and mobility strategies responsive to existing infrastructural conditions and future urban demands.			
Student Learning Outcome On completion of the elective, students will be able to critically analyse the interrelationship between urban form, infrastructure systems, transportation networks, mobility patterns, and land use. Students will develop the ability to assess infrastructural and mobility needs, identify accessibility and connectivity gaps, and apply principles of integrated transport planning, multimodal mobility, public transit, NMT, TOD, and urban street design. The knowledge and			

analytical skills acquired through the course are expected to be directly applied in the parallel design exercises, enabling students to develop context-responsive urban design and mobility strategies that integrate transportation infrastructure with the built environment and address existing and future urban demands.

Suggested Learning Resources: (Text Book/ Reference Book/ Manuals):

References:

1. Ponnuswamy, S. and Johnson Victor. *Urban Transportation: Planning, Operation and Management*. Tata McGraw-Hill, New Delhi.
— Relevant for understanding urban transportation systems, planning, operations, and management in the Indian context.
2. Papacostas, C. S. and Prevedouros, P. D. *Transportation Engineering and Planning*. PHI Learning.
— Useful as a theoretical and technical reference for transportation engineering and planning.
3. Ministry of Urban Development, Government of India. *National Urban Transport Policy (NUTP), 2006*. — Strongly recommended as a core policy reference. It introduces the principles of integrated land-use and transport planning, multimodal transport, public transport, NMT, and mobility-oriented urban planning.
4. Ministry of Urban Development / Ministry of Housing and Urban Affairs, Government of India. *Guidance Documents for Transit Oriented Development (TOD), Non-Motorized Transport (NMT) and Public Bicycle Sharing (PBS)*.
— Particularly relevant to the course's focus on accessibility, mobility, metro areas, and the relationship between transportation and urban form. The TOD guidance provides an Indian planning framework and practical tools for integrating transit with urban development.
5. ITDP India and Environmental Planning Collaborative (EPC). *Better Streets, Better Cities: A Guide to Street Design in Urban India*.
— Retain this as a key design reference for the studio/assignment component dealing with street redesign, junctions, pedestrian movement, and public realm.
6. EMBARQ India. *Safe Access Manual: Safe Access to Mass Transit Stations in Indian Cities*.
— Retain this for understanding pedestrian access, last-mile connectivity, and integration of mass transit stations with surrounding urban areas.
7. Ministry of Housing and Urban Affairs, Government of India. *Streets for People Challenge / related street design resources*.
— Useful contemporary Indian reference for pedestrian-friendly, inclusive, and people-oriented streets.
8. Peter Calthorpe. *Urbanism in the Age of Climate Change*. Island Press.
— Useful for linking transportation, urban form, climate resilience, and sustainable urban development.
9. Hank Dittmar and Gloria Ohland. *The New Transit Town: Best Practices in Transit-Oriented Development*. Island Press.
— Useful as an international comparative reference for TOD, particularly when studied alongside the Indian TOD guidelines.
10. Stephen Graham and Simon Marvin. *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition*. Routledge.
— Useful for advanced theoretical understanding of infrastructure networks and their relationship with urban development.
11. IRC:103 – Guidelines for Pedestrian Facilities
12. IRC:SP:118 – Manual for Planning and Development of Urban Roads and Streets

Web links and Video Lectures (e-Resources): as per the faculty suggestion and recommendation
Suggested Learning Activities: 1. Group or individual case studies can be encouraged. 2. Reading sessions, Group discussions and debate can be enforced. 3. Master class guest talk can be conducted
Assessment Structure: The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) with carrying 100% weightage. To qualify and become eligible in the CIE, a student must score at least 50 % of maximum Marks for CIE
Continuous Internal Evaluation (CIE): Continuous Internal Evaluation will be based on Internal Reviews, Presentation, Quality of Discussion, Paper presentation, submission of Individual/Group work.
Semester End Examination (SEE): NA

Climate Response Urban Design			
Course Code	2MAUD205C	Scheme	2026-27
Type of Course	(Professional Elective Courses-III)	Semester	II
Teaching Hours/Week (L:T:P)	03 Hours/Week	CIE Marks	100
Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42:00:00:48=90	SEE Marks	00
Credits	03	Total Marks	100
Examination type (SEE)	NA	Exam Hours	NA
Course outcome (Course Skill Set) The course is intent to focus on macro-climatic analysis, mitigating the urban heat island effect, and integrating resilient, sustainable infrastructure into the urban built environment The course is structured around macro and micro study/exercises under Urban Climatology & Microclimate, Built Form, Density, and Morphology, Landscape, Blue-Green Infrastructure & Water, Climate Resilience, Policy & Adaptation Frameworks.			
Suggested Learning Resources: (Text Book/ Reference Book/ Manuals): 1. by Victor Olgyay: Explains the basic link between building design, regional climate, and human comfort. 2. <i>Urban Climates</i> by Tim Oke et al.: Covers the science of urban heat islands and local weather patterns. 3. <i>Microclimate for Urban Design</i> by Robert Brown and Terry Gillespie: Shows how to shape outdoor spaces using sun, wind, and vegetation.			

Assessment Structure:

The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) with carrying 100% weightage. To qualify and become eligible in the **CIE**, a student must score at least **50 % of maximum Marks for CIE**

Continuous Internal Evaluation (CIE):

Continuous Internal Evaluation will be based on Internal Reviews, Presentation, Quality of Discussion, Paper presentation, submission of Individual/Group work.

Semester End Examination (SEE): NA**Urban Heritage**

Course Code	2MAUD205D	Scheme	2026-27
Type of Course	(Professional Elective Courses-III)	Semester	II
Teaching Hours/Week (L:T:P)	03 Hours/Week	CIE Marks	100
Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42:00 :00 :48 =90	SEE Marks	00
Credits	03	Total Marks	100
Examination type (SEE)	NA	Exam Hours	NA

Course outcome (Course Skill Set)

At the end of the course, the student will be able to:

1. Understand the concepts, theories, and evolution of urban heritage and its significance in shaping cities.
2. Analyse historic urban landscapes using cultural, morphological, social, and spatial parameters.
3. Evaluate heritage conservation policies, legislation, and international charters applicable to urban environments.
4. Develop heritage-led urban regeneration and adaptive reuse strategies integrating sustainability and community participation.
5. Formulate heritage management proposals using documentation, GIS mapping, stakeholder engagement, and contemporary digital tools

Introduction to urban heritage

Concepts of urban heritage; evolution of heritage conservation; tangible and intangible heritage; cultural landscapes; Historic Urban Landscape (HUL) approach; heritage values—historical, architectural, cultural, social, ecological and economic; urban morphology, identity and sense of place; heritage and sustainable development; UNESCO World Heritage Cities; heritage cities in India.

Teaching Learning Process: Introduction to the course through lectures, documentary screenings, readings, discussions and case study presentations.

Urban heritage documentation and inventory

Methods of documentation of historic urban environments; heritage listing and grading; building and precinct documentation; measured drawings; streetscape analysis; townscape appraisal; heritage inventories; significance assessment; condition assessment; cultural mapping; GIS-based heritage mapping; photogrammetry; laser scanning; drone documentation; Heritage Information Systems.

Teaching Learning Process

Documentation exercises, field visits, GIS mapping demonstrations, workshops and student presentations

Conservation principles, policies and legislative framework

Conservation philosophies; Venice Charter, Burra Charter, Washington Charter, Nara Document on Authenticity, UNESCO Historic Urban Landscape Recommendation; Ancient Monuments and Archaeological Sites and Remains Act; Heritage Regulations; Heritage Impact Assessment; Development Control Regulations; institutional framework of UNESCO, ICOMOS, ICCROM, INTACH, ASI and Urban Local Bodies; national and international conservation case studies.

Teaching Learning Process

Lectures, policy review, seminars, debates and comparative case study discussions.

Heritage-led urban regeneration

Adaptive reuse; regeneration of historic urban areas; conservation of public spaces and streetscapes; industrial and waterfront heritage; cultural tourism; heritage economics; creative economy; living heritage; community participation; climate resilience; disaster risk management; heritage-sensitive urban development; revitalization of historic city centres through national and international case studies.

Teaching Learning Process

Lectures, case study presentations, group discussions, and heritage walk documentation and seminar presentations.

Urban heritage management and conservation planning

Integrated heritage management; Conservation Management Plans (CMP); heritage management frameworks; stakeholder participation; urban design guidelines for heritage precincts; mobility and accessibility in historic areas; interpretation and wayfinding systems; cultural routes; digital heritage; heritage-sensitive urban design; financing, implementation, monitoring and management of heritage conservation projects.

Teaching Learning Process

Studio-based exercises, preparation of conservation proposals, workshops, expert lectures and final presentations.

Suggested Learning Resources: (Text Book/ Reference Book/ Manuals):**Text books:**

1. Feilden, B.M. *Conservation of Historic Buildings*
2. Jokilehto, J. *A History of Architectural Conservation*.
3. Rodwell, Dennis. *Conservation and Sustainability in Historic Cities*.

Reference books / Manuals:

1. Ashworth, G. & Tunbridge, J. *The Tourist Historic City*.
2. Bandarin, F. & van Oers, R. *The Historic Urban Landscape*
3. Orbaşlı, Aylin. *Tourists in Historic Towns*
4. Pendlebury, John. *Conservation in the Age of Consensus*.
5. Peter Hall. *Cities of Tomorrow*

Web links and Video Lectures (e-Resources):

1. <https://whc.unesco.org/>
2. <https://whc.unesco.org/en/hul/>
3. <https://www.icomos.org/>
4. <https://www.icrom.org/>
5. <https://www.intach.org/>
6. <https://asi.nic.in/>
7. <https://www.getty.edu/conservation/>

Suggested Learning Activities:

1. Heritage precinct documentation
2. Measured drawing exercises
3. GIS-based heritage mapping
4. Urban morphology analysis
5. Heritage walk documentation
6. Adaptive reuse case study analysis

Assessment Structure: The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) with carrying 100% weightage. To qualify and become eligible in the CIE , a student must score at least 50 % of maximum Marks for CIE
Continuous Internal Evaluation (CIE): Continuous Internal Evaluation will be based on Internal Reviews, Presentation, Quality of Discussion, Paper presentation, submission of Individual/Group work.
Semester End Examination (SEE): NA

GIS-II			
Course Code	2MAUD206A	Scheme	2026-27
Type of Course	(Professional Elective Course-IV)	Semester	II
Teaching Hours/Week (L:T:P)	03Hours/Week	CIE Marks	100
Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42:00 :00 :48 =90	SEE Marks	00
Credits	03	Total Marks	100
Examination type (SEE)	NA	Exam Hours	NA
Course outcome (Course Skill Set) At the end of the course, the student will be able to: 1. Apply computational thinking — cellular automata, agent-based modelling — to represent cities as complex adaptive systems. 2. Use Python-based geospatial libraries and GeoAI techniques for automated urban feature extraction and morphological analysis. 3. Build 3D city models and digital-twin representations of urban precincts using reality-capture data. 4. Evaluate the role of geospatial IoT, real-time sensing and big data in smart urban governance and planning. 5. Design and deploy a WebGIS-based decision-support platform on an Urban Design project.			
• Computational and AI-driven approaches in GIS, and cities as complex adaptive systems. • Computational thinking for solving location-based problems, algorithmic reasoning for spatial problems, and how digital twins, Geo BIM fit into urban design & planning practice. • Sustainable Development Goals and the role of geospatial technology in addressing future urban challenges. • Advanced spatial data models and statistics, SQL and spatial query, • Introduction to Python-based geospatial computing. • Advanced urban morphology and configurational network analysis, and an introduction to deep learning for spatial feature extraction and image classification. • Fundamentals of 3D GIS, reality mapping and digital twins — global and Indian practice: Virtual Singapore, Smart Cities Mission digital-twin pilots — and building city-scale 3D models from drone/terrestrial-laser-scanner data captured in GIS-I. • Interactive geospatial applications: story maps, decision-support dashboards, AR/VR for city visualization and participatory design, and GeoBIM/GIS–BIM integration.			

- Geospatial AI (GeoAI) for urban analytics — AI/ML/DL concepts, building-footprint and land-use extraction, and AI-assisted urban growth and change detection.

Web GIS architecture and platforms, map publishing, and interactive dashboards for evidence-based urban design decision-support.

Suggested Learning Resources: (Text Book/ Reference Book/ Manuals):

Text books:

1. Longley, P.A., Goodchild, M.F., Maguire, D.J., & Rhind, D.W. (2015). Geographic Information Science and Systems (4th ed.). Wiley.
2. Lovelace, R., Nowosad, J., & Muenchow, J. (2019). Geocomputation with R. CRC Press. — supports Python/R-based spatial analysis, Module 2
3. Batty, M. (2013). The New Science of Cities. MIT Press. — supports computational thinking on urban systems, Module 1

Reference books / Manuals:

1. Boeing, G. (2017). OSMnx: New Methods for Acquiring, Constructing, Analyzing, and Visualizing Complex Street Networks. Computers, Environment and Urban Systems. — supports network analysis, Module 2
2. Batty, M., & Longley, P. (1994). Fractal Cities: A Geometry of Form and Function. Academic Press. — supports urban morphology, Module 2
3. Biljecki, F., Stoter, J., Ledoux, H., Zlatanova, S., & Çöltekin, A. (2015). Applications of 3D City Models: State of the Art Review. ISPRS International Journal of Geo-Information. — supports 3D GIS and digital twins, Module 3
4. Batty, M. et al. (2020). Virtual Singapore: A Blueprint for Digital Urban Planning. Environment and Planning B. — supports digital twin case studies, Module 3
5. Janowicz, K., Gao, S., McKenzie, G., Hu, Y., & Bhaduri, B. (2020). GeoAI: Spatially Explicit Artificial Intelligence Techniques for Geographic Knowledge Discovery and Beyond. International Journal of Geographical Information Science. — supports Module 4

QGIS Project. QGIS Training Manual and Processing/PyQGIS Cookbook (official, open-source, updated continuously) — docs.qgis.org

Web links and Video Lectures (e-Resources):

1. NPTEL/SWAYAM
2. Esri — Introduction to GeoAI and ArcGIS CityEngine tutorials: esri.com/training
3. Google Earth Engine — Developer guides and case-study gallery: developers.google.com/earth-engine
4. Spatial Thoughts — Python for geospatial analysis tutorials (GeoPandas, OSMnx, Rasterio): spatialthoughts.com
5. Momepy documentation — urban morphometrics in Python: docs.momepy.org
6. Space Syntax Network — Depthmap/configurational analysis resources: spacesyntax.net
7. CityGML / OGC — 3D city model standards and digital twin resources: ogc.org
8. Virtual Singapore / Singapore Land Authority digital twin portal: sla.gov.sg
9. Smart Cities Mission (India) — digital twin and ICC case studies: smartcities.gov.in
10. Karnataka State Remote Sensing Applications Centre (KSRSAC) / State GIS Portal — for local spatial data relevant to a Bengaluru-based studio: kgis.ksrsac.in
11. Open source geospatial analysis tools for Large Data sets - Kepler.gl documentation (for web publishing and dashboards): kepler.gl
12. Leaflet.js documentation (for interactive web GIS applications): leafletjs.com

ArcGIS Living Atlas of the World: livingatlas.arcgis.com

Suggested Learning Activities:

1. Computational Urban Network Analysis: Node-node adjacency and shortest-path computation on a real street network; accessibility and centrality metrics.
2. Python-Based Urban Morphometrics: Extraction and classification of urban form parameters (block size, plot depth, street width) using open-source Python libraries.
3. Terrain and Surface Modelling: Advanced terrain analysis using grid/surface data models — slope, aspect, viewshed, and drainage computation.
4. Digital Twin Prototype: Building a simplified city-scale 3D model from point-cloud or drone data captured in GIS-I, integrated into a reality-mapping workflow.
5. AR/VR Walkthrough Exercise: Creating a basic AR/VR visualization of a proposed urban design intervention for navigation or participatory review.
6. GeoAI Land-Use Classification: Applying pre-trained AI/ML models to classify land use/land cover or extract building footprints from satellite/aerial imagery.
7. Urban Growth and Change Detection: AI-assisted comparison of multi-temporal imagery to map urban expansion or green-cover change.
8. Interactive Geospatial Dashboard: Development of a story map, app, or decision-support dashboard synthesizing the semester's analysis for a chosen urban site.

Assessment Structure:

The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) with carrying 100% weightage. To qualify and become eligible in the **CIE**, a student must score at least **50 % of maximum Marks for CIE**

Continuous Internal Evaluation (CIE):

Continuous Internal Evaluation will be based on weekly assignments, class presentations, participation in seminar discussions and term paper / report submission.

Semester End Examination (SEE): NA

Urban data Analytics			
Course Code	2MAUD206B	Scheme	2026-27
Type of Course	(Professional Elective Course-IV)	Semester	II
Teaching Hours/Week (L:T:P)	03 Hours/Week	CIE Marks	100
Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42:00 :00 :48 =90	SEE Marks	00
Credits	03	Total Marks	100
Examination type (SEE)	NA	Exam Hours	NA

Course outcome (Course Skill Set)

Urban Data analytics: is the practice of using new forms of data in combination with computational approaches to gain insight into urban processes looking to data to find better ways to manage cities and urban areas around the world. Gain insight into methods and techniques employed in analysing contemporary planning issues, policy outcomes and impacts. Understanding of the nexus between urban life and digital technology.

This elective course provides the knowledge and skills to design and conduct appropriate analyses, and experience of working with cutting-edge datasets.

1. Urban systems and management:

- Understanding urban systems and supporting urban planning and management.
- Introduction to basic terms and concepts, the roles of different types of cities in urban networks.
- Practical and analytical skills to explore, visualise, and to understand city-scale spatial data. Data Analytics as a key component in architecture and Urban research domain

2. Interdisciplinary methodological skills:

- Concepts and terms in data analytics, Introduction to Big data, different forms which big data take to design solutions to the world's urban challenges – capitalising on emerging developments in data analytics and digital technologies.

3. Principles and application of GIS software:

- Use of spatial methods and geographic information systems (GIS). Its fundamental theories and methods. Application of GIS in practice to real world problems using appropriate GIS software. (preferably open source)

4. Programming tools for urban analytics:

- Different analytical tools, Analysis of trends and spatial patterns with indicators, Baseline profiling and making use of neighbourhood statistics.
- Monitoring of change: time series and spatial movement.
- Model of communication; Visualizations as data and maps,

5. Quantitative data analysis:

- Introduction to basic statistics and data analysis. Understanding Quantitative and qualitative analysis techniques; univariate to multivariate linear regression. taking a data set example-Summarise, analyse and present data in a valid way.

6. Processing quantitative data:

- Data analysis with Excel, DBMS and GIS (This includes vector operations like buffering, clipping and intersection, as well as raster-based manipulations such as applying map algebra, or calculating slope and exposition from digital elevation models)
- Different approaches, such as land-use transport interaction models, cellular automata, agent-based modelling, etc., These models will be considered at different time scales, such as short-term modelling, e.g. diurnal patterns in cities, and long term models for exploring change through strategic planning.

7. Sustainable urban features:

- Understanding Urban features, Area typologies and its classifications, Projections and scenario building.
- Sustainable urban futures, knowledge of interdisciplinary urban analytical methods.

8. Urban Policies and evaluation:

- Policy development and strategic plan-making, present results for policy audiences.
- Techniques and methods used to analyse and evaluate spatial issues and planning policy.

9. Urban analytics project:

- Application of Data Analytics through an URBAN Project taken from previous semester. Development of a urban project using concepts learnt in this course.

Teaching learning process: Introduction of the course through lectures.

lecture and hands on lab exercises: Students will complete lab exercises using any good Spatial information systems software such as QGIS/ Global mapper/ Autocad MAP3D/ ArcExplorer/coding in python or R software/ GRASS.

Suggested Learning Resources: (Text Book/ Reference Book/ Manuals):

Suggested learning resources:

1. Batty, M. (2013). The new Science of Cities. The MIT Press.
2. Jensen, R. R., Gatrell, J. D., & McLean, D. (Eds.). (2007). Geo-Spatial Technologies in Urban Environments: Policy, Practice, and Pixels. Springer.
3. Agent-Based Modelling and Geographical Information Systems, A Practical Primer, Andrew Crooks - George Mason University, USA
4. Townsend, A. (2015). Cities of Data: Examining the New Urban Science. Public Culture, 27(2 (76)), 201–212.
5. Burrough, P. A., McDonnell, R. A., & Lloyd, C. D. (2015). Principles of Geographical Information Systems (3rd Ed.). Oxford University Press.
6. Chun, Y., & Griffith, D. A. (2013). Spatial statistics and geostatistics: theory and applications for geographic information science and technology. Sage.
7. Dovey, K., Pafka, E., & Ristic, M. (Eds.) (2018). Mapping Urbanities. Taylor & Francis.
8. Fischer, M. M., & Getis, A. (Eds.). (2010). Handbook of Applied Spatial Analysis. Springer.
9. Gaetan, C., & Guyon, X. (2010). Spatial statistics and modeling (Vol. 81). New York:

10. Springer. 11. Longley, P. A., Goodchild, M. F., Maguire, D. J., & Rhind, D. W. (2015). Geographic Information Science and Systems (4th Ed.). Wiley. 12. Spector, Paul E., and Michael T. Brannick. "Methodological Urban Legends: The Misuse of Statistical Control Variables." Organizational Research Methods, 2011. https://doi.org/10.1177/1094428110369842. 13. Morgan, David L. "Research Design and Research Methods." In Integrating Qualitative and Quantitative Methods: A Pragmatic Approach, 2017. https://doi.org/10.4135/9781544304533.n3.
Web links and Video Lectures (e-Resources): As per the suggestion and recommendation of the faculty
Suggested Learning Activities: 1. Group or individual case studies can be encouraged. 2. Reading sessions, Group discussions and debate can be enforced. 3. Master class guest talk can be conducted
Assessment Structure: The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) with carrying 100% weightage. To qualify and become eligible in the CIE, a student must score at least 50 % of maximum Marks for CIE
Continuous Internal Evaluation (CIE): Continuous Internal Evaluation will be based on weekly assignments, class presentations, participation in seminar discussions and term paper / report submission.
Semester End Examination (SEE): NA

Real estate and Urban Design			
Course Code	2MAUD206C	Scheme	2026-27
Type of Course	Professional Elective Course-IV	Semester	II
Teaching Hours/Week (L:T:P)	03Hours/week	CIE Marks	100
Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42:00 :00 :48 =90	SEE Marks	00
Credits	03	Total Marks	100
Examination type (SEE)	NA	Exam Hours	NA
Course outcome (Course Skill Set) Introduction to the various aspects of Real estate development and its influence on city and development.			

1. Urban Design and real estate-An Introduction-Introduction to the Role of Real Estate, real estate forces and its influence in making of region, city, neighborhood, block and street. Impact on built form and social, cultural and environmental nature of cities, Case studies . 2. Real estate, society and urban development- land use and housing policies , development regulations and building codes, affordable housing, government regulations , ESG (Environmental, Social and Governance)criteria, case studies 3. Real estate and finance and Law- Land law, Contract law – formation and terms, Leases – commercial, agricultural and residential, Easements, Tort (public nuisance, trespass and negligence) online consumerism,& <i>Property Rights and Ownership</i> &global flow of capital, land value, financing model, case studies. 4. Real estate development and marketing: public private partnership, mortgage, bank loan and joint ventures, case studies . 5. Real estate and entrepreneurship: new towns, new technology, smart building, case studies Case studies in Real estate development, development project
Suggested Learning Resources: (Text Book/ Reference Book/ Manuals): 1. Urban Design in the Real Estate Development Process: 46 (Real Estate Issues) by Steve Tiesdell and David Adams 2. Public and private spaces in the city-Ali madanipour 3. Real estate development and investment: A comprehensive approach –SP Peco 4. Land and the city: Patterns and process of urban change –Philip kivel 5. Land, development and design –Paul syms 6. Real estate principles-charles J Jacobus 7. Real estate modeling and forecasting –chris brooks, sotiristsolacos
Web links and Video Lectures (e-Resources): As per the suggestion and recommendation of the faculty
Suggested Learning Activities: 1. Group or individual case studies can be encouraged. 2. Reading sessions, Group discussions and debate can be enforced. 3. Master class guest talk can be conducted
Assessment Structure: The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) with carrying 100% weightage. To qualify and become eligible in the CIE, a student must score at least 50 % of maximum Marks for CIE
Continuous Internal Evaluation (CIE): Continuous Internal Evaluation (CIE): Continuous Internal Evaluation will be based on weekly assignments, class presentations, participation in seminar discussions and term paper / report submission.
Semester End Examination (SEE): NA

Political Ecologies and Environment Discourse			
Course Code	2MAUD206D	Scheme	2026-27
Type of Course	Professional Elective Course-IV	Semester	II
Teaching Hours/Week (L:T:P)	03Hours/week	CIE Marks	100
Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42:00 :00 :48 =90	SEE Marks	00
Credits	03	Total Marks	100
Examination type (SEE)	NA	Exam Hours	NA
Course outcome (Course Skill Set) The course explores how power, capital, and social structures shape Urban ecosystems, resource distribution and its socio-economic relation with the built environment. It reframes design as an active political agent in environmental governance. The course structured around the broad idea of the city as socio-natural hybrid system, critiques of resources/human environment interaction and distribution, capitalist urbanisation, urban metabolism-concepts and spatial distribution such as water, waste, energy etc. Urban landscape and role of state regulations and market forces, dimension of global warming and adaptation strategies, global south and north perspectives, right to the city, environmental movements its relation to urban design			
Suggested Learning Resources: (Text Book/ Reference Book/ Manuals): 1. The Politics of the Earth: Environmental Discourses by John S. Dryzek 2. Urban Political Ecology: A Critical Introduction by Nik Heynen, Maria Kaika, and Erik Swyngedouw 3. Political Ecology: A Critical Introduction by Paul Robbins 4. Ecological Urbanism edited by Mohsen Mostafavi and Gareth Doherty 5. The Routledge Handbook of Architecture, Urban Space and Politics (Vol. II)			
Web links and Video Lectures (e-Resources): As per the suggestion and recommendation of the faculty			
Suggested Learning Activities: 1. Group or individual case studies can be encouraged. 2. Reading sessions, Group discussions and debate can be enforced. 3. Master class guest talk can be conducted			

Assessment Structure:
The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) with carrying 100% weightage. To qualify and become eligible in the CIE , a student must score at least 50 % of maximum Marks for CIE
Continuous Internal Evaluation (CIE):
Continuous Internal Evaluation (CIE): Continuous Internal Evaluation will be based on weekly assignments, class presentations, participation in seminar discussions and term paper / report submission.
Semester End Examination (SEE): NA

Urban Design Policy and Implementation			
Course Code	2MAUD207	Scheme	2026-27
Type of Course	PCC ((Minor Project /Ability Skill Development Project)	Semester	II
Teaching Hours/Week (L: T:P)	03 Hours/week	CIE Marks	50
Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	14:00:28:48=90	SEE Marks	50
Credits	03	Total Marks	100
Examination type (SEE)	TW	Exam Hours	TW
Course outcome (Course Skill Set)			
At the end of the course, the student will be able to:			
- Emphasize the importance of integrating the urban design agenda into the city planning process and highlight the challenges of urban design practice in India. - Focus on illustrating methods and design tools to address and incorporate urban design in city planning, from the policy level to city plan and project implementation. - Understand the significance of the urban design visioning process, preparation of urban design strategies, policies, regulations and guidelines for plan and project implementation. - Discuss the influence of current and new innovative policies and development regulations on city structure, built form and urban space, using case examples. Highlight the challenges of application of urban design policy and implementation mechanisms for urban design projects using examples from India and abroad.			
Course Outline:			
1. Role of urban design in the city planning process and process for preparing urban design plans - Historic overview and case examples of current planning policies influencing urban design at regional and city scales; and - Role of visioning process in urban design plan preparation; analysis of issues and opportunities; and preparation of concept plans with objectives, policies and developmental strategies.			

- 2. Impact of land use zonal regulations and other innovative design tools on urban form and space**
 - Analysis of impact of current land use and development regulations of Master Plans on urban form and space; and
 - Innovations in development regulations, alternative types of zoning and design tools including form-based codes, performance zoning, incentive zoning and design review.
- 3. Practical exercise to prepare an urban design framework and apply policies and design tools**
 - Preparation of urban design / local level plans with a vision, concepts, and strategies in a given context; and
 - Role of applicable policies, design regulations, design guidelines and other tools and methods in preparing a framework for implementing a first order design intervention.
- 4. Challenges of preparing an urban design framework**
 - Impact of informality and temporality on regulating urban form and space; limitations of current planning framework; and
 - Understanding the role of urban design in the real estate development process.
- 5. Project implementation strategies and modalities**
 - Role of Government, private sector, CBOs / NGOs and other stakeholders;
 - Participatory design process and public engagement process

Project implementation process including preparation of short term and long term actions, strategies for financing, and operations and maintenance guidelines for design projects

Teaching Learning Process:

- Lectures, videos and studio exercises to understand the parameters for urban design plan preparation
- Case studies, readings, discussions and class presentations on alternative types of design tools and their impact on urban form
- Practical exercises and group work to illustrate the process of preparing a framework for urban design implementation and testing the application of regulations and design tools
- Readings with case examples to discuss challenges of design in the real estate development process

Case studies and critical review of implementation modalities of various urban design projects

Suggested Learning Resources: (Text Book/ Reference Book/ Manuals):

Suggested learning resources: (Includes but not restricted to the following)

Books:

1. Barnett, Jonathan. Introduction to Urban Design, Icon (Harpe); 1st edition, 1982. ISBN: 978-0064303767.
2. Barnett, Jonathan. Urban Design as Public Policy, McGraw-Hill Inc.,US, 1974. ISBN: 978-0070037663.

3. Hall, Tony. Turning a Town Around: A Proactive Approach to Urban Design. Oxford, United Kingdom: Blackwell Publishing, 2008. ISBN: 978-1405170239.
4. Hosagrahar, Jyoti. Indigenous Modernities: Negotiating Architecture and Urbanism, Routledge 2005
5. Jacob, Alan. Making City Planning Work, American Planning Association, 1980. ISBN: 978-0918286123
6. Lang, Jon. Urban Design: A Typology of Procedures and Products. Oxford, United Kingdom: Architectural Press, 2005. ISBN: 978-0750666282.
7. Lehnerer, Alexander. Grand Urban rules (Rotterdam: 010 Publishers, 2009)
8. Lynch, Kevin. Managing the sense of a region, MIT Press, 1976
9. Tiesdell, Steve and Adams, David. Urban Design in the Real Estate Development Process. Wiley-Blackwell, 2011. ISBN: 978-1405192194
10. Tiesdell, Steve and Carmona, Mathew. Urban Design Reader, Routledge 2007
11. Bureau of Indian Standards. National Building Code, 2010.
12. Master Plans of Bangalore, New Delhi, Mumbai and other Indian cities.
13. Selected journal articles and readings

Web links and Video Lectures (e-Resources): (Includes but not restricted to the following)

1. Commission for Architecture and the Built Environment. Design Review, Principles and Practice, 2009. (www.cabe.org.uk/files/design-review-principles-and-practice.pdf)
 2. In-formalised urban space design. Rethinking the relationship between formal and informal (<https://cityterritoryarchitecture.springeropen.com/articles/10.1186/s40410-016-0046-9>)
 3. Patel, Shirish. Urban Layouts, Densities and the Quality of Urban Life (<https://www.epw.in/journal/2007/26/special-articles/urban-layouts-densities-and-quality-urban-life.html>)
 4. Design Review: Principles and Practice (https://www.designcouncil.org.uk/fileadmin/uploads/dc/Documents/Design%2520Review_Principles%2520and%2520Practice_May2019.pdf)
 5. Incremental production of urban space: A typology of informal design. (<https://www.sciencedirect.com/science/article/pii/S019739751930877X>)
 6. Excerpt from The Kinetic City & Other Essays: The Permanent and Ephemeral (<https://www.gsd.harvard.edu/2021/11/excerpt-from-the-kinetic-city-other-essays-the-permanent-and-ephemeral-by-rahul-mehrotra/>)
- Tactical urbanism guidebook. (<https://www.mobilisyourcity.net/tactical-urbanism-guidebook-gizmohua-india>)
- A. Srivathsan: 60 years of Planning – Lessons from Chennai, Urban Planning in India (<https://soundcloud.com/crdfpodcast/a-srivathsan-60-years-of-planning-lessons-from-chennai>)

Suggested Learning Activities:

1. Group or individual case studies can be encouraged.
2. Reading sessions, Group discussions and debate can be enforced.
3. Master class guest talk can be conducted

Assessment Structure:

The assessment in each course is divided equally between Continuous Internal Evaluation (CIE) and the Semester End Examination (SEE), with each carrying 50% weightage.

- To qualify and become eligible to appear for SEE, in the **CIE**, a student must score at least **50 % of maximum Marks for CIE**,
- To pass the **SEE**, a student must score at least **40 % of Maximum marks for SEE**. Notwithstanding the above, a student is considered to have **passed the course**, provided the combined total of **CIE and SEE** is at least **50 out of 100 marks**.

Continuous Internal Evaluation (CIE):

Continuous Internal Evaluation will be based on weekly assignments, class presentations, participation in seminar discussions and term paper / report submission.

Semester End Examination (SEE): individual or group assignments compiled as portfolio evaluated as Term Work(TW)