

SYLLABUS FOR THE BATCH FROM YEAR 2025 TO 2026

FOR

**Certificate/Diploma in
Sustainable Cities and Communities**

**(Credit Based Evaluation and Grading System)
Semester: I-II**

EXAMINATIONS: 2025-2026

The Certificate/Diploma Programme Offered:

- **Certificate Course in Sustainable Cities and Communities (6 Months duration)**
- **Diploma in Sustainable Cities and Communities(6+6 = 12 Months duration)**



Program Outcomes:

- **Fundamental Knowledge of Urban Systems:** Students will gain an understanding of the core principles and concepts of urban systems including historical, natural, built, social, heritage, sustainable development and policy frameworks.
- **Enhanced Analytical Skills** – The Program focuses on improving students' capacities to analyse Cities with respect to sustainability requisites and thereby enhance their abilities in conceptualizing livability and community needs.
- **Career Readiness & Employability** – The Program prepares for careers as Urban Planners, Sustainability Consultants, Policy Analysts and Community Development Professionals.

**Name of Department: Guru Ramdas School of Planning
In collaboration with
Directorate of Open & Distance Learning and Online Studies**

**GURU NANAK DEV UNIVERSITY
AMRITSAR**

Certificate/Diploma in Sustainable Cities and Communities Offered by Department of Guru Ramdas School of Planning in Collaboration with Directorate of Open & Distance Learning and Online Studies, Guru Nanak Dev University Amritsar.

Eligibility:

- +2 in any stream or Equivalent.
- Any student doing Bachelor Degree, Master Degree, M.Phil., Ph.D. from GNDU.

SEMESTER-I

| Course Code | Course Title | Marks | | | Credits |
|----------------------------------|-------------------------------|---------------------|------------|------------|-----------|
| | | Internal Assessment | End Term | Total | |
| ODSCC111T | Cities and Urbanization | 30 | 70 | 100 | 4 |
| ODSCC112T | Transportation Fundamentals | 30 | 70 | 100 | 4 |
| ODSCC113T | Natural and Built Environment | 30 | 70 | 100 | 4 |
| ODSCC114P | Project Work | 100 | — | 100 | 4 |
| Total Marks & Credits | | 190 | 210 | 400 | 16 |

SEMESTER-II

| Course Code | Course Title | Marks | | | Credits |
|----------------------------------|---|---------------------|------------|------------|-----------|
| | | Internal Assessment | End Term | Total | |
| ODSCC211T | Heritage and Culture | 30 | 70 | 100 | 4 |
| ODSCC212T | Housing and Shelter | 30 | 70 | 100 | 4 |
| ODSCC213T | Public Policy and Community Participation | 30 | 70 | 100 | 4 |
| ODSCC214P | Project Report | 100 | — | 100 | 4 |
| Total Marks & Credits | | 190 | 210 | 400 | 16 |

Certificate/Diploma in Sustainable Cities and Communities Offered by Department of Guru Ramdas School of Planning in Collaboration with Directorate of Open & Distance Learning and Online Studies, Guru Nanak Dev University Amritsar.

(Semester-I)

Course Title: Cities and Urbanization

Course Code: ODSCC111T

Time: 03 Hours

Max. Marks: 100 Marks

Internal Assessment: 30 Marks

End Term: 70 Marks

Instructions for the Paper-Setter/examiner:

1. Question paper shall consist of **Four sections**.
2. Paper setter shall set **Eight questions** in all by selecting **Two questions** of equal marks from each section. However, a question may have sub-parts (not exceeding four sub- parts) and appropriate allocation of marks should be done for each sub-part.
3. Candidates shall attempt **Five questions** in all, by at least selecting **One question** from each section and the **5th question** may be attempted from any of the **Four sections**.
4. The question paper should be strictly according to the instructions mentioned above. In no case a question should be asked outside the syllabus.

Course Objectives:

- To have an understanding about the urbanization issues and prevalent development trends.
- The course shall play a prime role in understanding the trends of real estate and peri-urban development scenarios.
- To understand and weigh the urban development initiatives of the Government of India.

Section – A

The Concept of Urbanization and its Objectives along with broad issues. Global and Indian scenario of Urbanization; Role and Importance of balanced and unbalanced growth trends.

Section –B

Theories of urban growth and development, Impact of Informal Urbanization and Development trends on Real Estate; Importance and Issues of Peri-urban Development

Section –C

Urban Development Policies: Mega Projects, Licensed Colonies, Land Pooling Policy, E.W.S. Policy.

Section - D

Urban Development Initiatives in India: JNNURM (Jawaharlal Nehru National Urban Renewal Mission), UIDSSMT (Urban Infrastructure Development Scheme for Small and Medium Towns), SMART Cities and AMRUT (Atal Mission for Rejuvenation and Urban Transformation)

Course Outcomes:

Upon the completion of this course, the students would be able:

- To express thoughtful ideas and concepts about the rationales of planning and development mechanisms.
- To learn processes affecting implementation mechanisms.
- To show knowledge of urbanization policies and plans, and their relationship with planning

Suggested Readings:

1. A. M. Van Der Woude; Akira Hayami; Jan De Vries (1995) *Urbanization in History: A Process of Dynamic Interactions* Clarendon Press, Oxford.
2. Amitab Kundu, B. N. Singh and K.C. Sivaramakrishnan (2005) *A Handbook of Urbanization in India: An Analysis of trends and Processes*: Oxford University Press. New Delhi
3. Ashish Bose (1973) *Studies in India's Urbanisations 1901–71*. Tata McGraw Hill. New Delhi
4. Bergel E.B. (1968) *Urban Sociology*. Green World Press. New York
5. David Clark (2003) *Urban World/Global City* (2nd edition) Routledge
6. F. Webster (2004) *Information Society Reader*: Routledge, Taylor and Francis. London
7. M. S. A. Rao (1992) *Urban Sociology in India*. Orient Longman. New Delhi
8. Paul G. Lewis (2009) *Custodians of Place: Governing the Growth and Development of Cities*. Max Neiman Georgetown University Press,
9. Peter Evans (2002) *Livable Cities? Urban Struggles for Livelihood and Sustainability* University of California Press. California
10. R. S. Sandhu and Jasmeet Sandhu (2007) *Globalising Cities: Inequality and Segregation in Developing Countries*: Rawat. Jaipur
11. Yuri Kazepov (Ed) (2005) *Cities of Europe: Changing Contexts Local Arrangements and Challenge to Urban Cohesion*. Blackwell Publishing. U. K.:

(Semester-I)

Course Title: Transportation Fundamentals

Course Code: ODSCC112T

Time: 03 Hours

Max. Marks: 100 Marks

Internal Assessment: 30 Marks

End Term: 70 Marks

Instructions for the Paper-Setter/examiner:

1. Question paper shall consist of **Four sections**.
2. Paper setter shall set **Eight questions** in all by selecting **Two questions** of equal marks from each section. However, a question may have sub-parts (not exceeding four sub- parts) and appropriate allocation of marks should be done for each sub-part.
3. Candidates shall attempt **Five questions** in all, by at least selecting **One question** from each section and the **5th question** may be attempted from any of the **Four sections**.
4. The question paper should be strictly according to the instructions mentioned above. In no case a question should be asked outside the syllabus.

Course Objectives:

- To introduce the Students to the basic concepts and rationales of transportation in the light of the Sustainability Development Goals (SDGs).
- To familiarize the students with nature and type of transport modes and their specific characteristics.
- To understand the factors impacting transportation and achieving sustainable mobility in Cities.

Section – A

Transport Definitions and Subject Matter, Evolution of Transportation, Development of Roadways, Railways, Water ways, Airways and Freight Transport, Contemporary Significance of Transportation.

Section – B

Economic, Social and Geographical factors impacting Transport, Sustainable Transport Modes and their characteristics, Non-Motorized Transport, Public and Para Transit Transport Modes.

Section – C

Factors affecting choice of Transport, Concept of Walking City, Transit City and Automobile City, Futuristic Vision on Public and Private modes.

Section – D

Transport and its Environmental Implications, National Urban Transport Policy, Global and National Best Practices in Transport.

Course Outcomes:

Upon the completion of this course, the students would be able to:

- Understand the idea of evolution of transportation and factors impacting it.
- Demonstrate knowledge on various modes of transportation, their characteristics and role in mobility .

Suggested Readings

1. Daganzo F. C. (1997). Fundamentals of Transportation & Traffic Operations, London: Emerald Group Publication Limited.
2. Grava.S (2002). Urban Transportation Systems: Choices for Communities, N York: McGraw-Hill Professional.
3. Gross.S & Klemmer. L.(2014). Introduction to Tourism Transport, UK: Cabi Publishers.
4. Ollivier.Y, Villani..C & Pajot.H, (2014). Optimal Transportation Theory & Application, Cambridge: Cambridge University Press.
5. Schiller L. P., Brunn C. E. & Kenworthy R. J. (2010). An Introduction to Sustainable Transportation – Policy, Planning & Implementation, Washington: Earthscan Publishers.
6. Tolley R.S, (2003), Sustainable Transport - Planning for Walking & Cycling in Urban Environment, Sawton: Woodhead Publishing & CRC Press.
7. Walden C F (2023) Fundamentals of Transportation, UK: Legare Street Press.

(Semester-I)

Course Title: Natural and Built Environment

Course Code: ODSCC113T

Time: 03 Hours

Max. Marks: 100 Marks

Internal Assessment: 30 Marks

End Term: 70 Marks

Instructions for the Paper-Setter/examiner:

1. Question paper shall consist of **Four sections**.
2. Paper setter shall set **Eight questions** in all by selecting **Two questions** of equal marks from each section. However, a question may have sub-parts (not exceeding four sub- parts) and appropriate allocation of marks should be done for each sub-part.
3. Candidates shall attempt **Five questions** in all, by at least selecting **One question** from each section and the **5th question** may be attempted from any of the **Four sections**.
4. The question paper should be strictly according to the instructions mentioned above. In no case a question should be asked outside the syllabus.

Course Objectives:

- Introduce students to the concepts of natural and built environments and their interrelationships.
- Explore the role of land use planning in shaping sustainable cities and communities.
- Understand the impact of human activities on natural ecosystems and the built environment.
- Provide a foundation for understanding sustainable urban development.

Section A

Introduction to the Natural and Built Environment: Definition and scope of natural and built environments; Interdependence between ecosystems and urban development; Historical evolution of human settlements and their impact on the environment

Section B

Natural Environment: Key components of natural ecosystems: air, water, soil, biodiversity; Ecosystem services and their importance for urban areas; Threats to natural environments: pollution, urban heat islands, increasing carbon footprint, climate change.

Section C

Built Environment: Components of the built environment: buildings, infrastructure, public spaces; Principles of land use plan and its role in urban development; Challenges in land use planning: sprawl, gentrification, and resource allocation and their environmental impact.

Section D

Sustainability in Natural and Built Environments: Concept of sustainable development in urban planning. Integrating Natural and Built Environments: Nature-based solutions, Blue-Green infrastructure, Renewable energy integration, waste management in urban areas. UN SDGs and target for natural and built environment

Course Outcomes:

By the end of the course, students should be able to:

- Articulate the relationship between natural and built environments.

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- Analyze and propose solutions to sustainability challenges in urban areas.

Suggested Readings:

1. Centre for Science and Environment (CSE). (2023). State of India's environment: Annual report on urban and natural ecosystems. CSE.
2. European Commission. (2022). Nature-based solutions for sustainable urban planning. European Union.
3. India Habitat Centre (IHC) & UN-Habitat. (2021). Sustainable urbanisation in India: Challenges and opportunities. UN-Habitat.
4. Intergovernmental Panel on Climate Change (IPCC). (2022). Climate change and cities report. IPCC.
5. International Transport Development Policy (ITDP). (2021). Complete streets: A policy framework. ITDP.
6. Jacobs, J. (1961). The death and life of great American cities. Random House.
7. Kostof, S. (1991). The city shaped: Urban patterns and meanings through history. Thames & Hudson.
8. Lynch, K. (1960). The image of the city. MIT Press.
9. McDonough, W., & Braungart, M. (2002). Cradle to cradle: Remaking the way we make things. North Point Press.
10. McHarg, I. (1969). Design with nature. Natural History Press.
11. Ministry of Environment, Forest and Climate Change (MoEFCC). (2019). National action plan on climate change (NAPCC) and state action plans. Government of India.
12. Ministry of Housing and Urban Affairs (MoHUA). (2021). Affordable green housing policy in India. Government of India.
13. Mishra, A., & Shah, T. (2018). Water-sensitive urban design in India. IWMI.
14. Mumford, L. (1961). The city in history: Its origins, its transformations, and its prospects. Harcourt, Brace & World.
15. NASA & United Nations Environment Programme (UNEP). (2021). Urban heat island effects: A global perspective. NASA & UNEP.
16. TERI (The Energy and Resources Institute). (2022a). Decarbonizing Indian cities: Renewable energy and circular economy. TERI.
17. TERI (The Energy and Resources Institute). (2022b). State of India's environment report. TERI.
18. United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. United Nations.
19. UN-Habitat. (2020). The future of urban form and infrastructure. UN-Habitat.
20. Urban and Regional Development Plan Formulation and Implementation (URDPFI) Guidelines. (2015). Urban and regional development planning framework. Ministry of Housing and Urban Affairs, Government of India.
21. World Bank. (2022). Urban land markets and housing affordability. World Bank.
22. World Health Organization (WHO). (2016). Urban green spaces and health. WHO.

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(Semester-I)

Course Title: Project Report

Course Code: ODSCC114P

Max. Marks: 100 Marks

Credit-4

Each student shall be assigned a theme to write a report on the basis of the courses carried out during the semester. He/she will have to select the theme in confirmation with the Course Coordinator and write the report by the end of the semester and submit accordingly to the Course Coordinator.

(Semester–II)

Course Title: Heritage and Culture

Course Code: ODSCC211T

Time: 03 Hours

Max. Marks: 100 Marks

Internal Assessment: 30 Marks

End Term: 70Marks

Instructions for the Paper-Setter/examiner:

1. Question paper shall consist of **Four sections**.
2. Paper setter shall set **Eight questions** in all by selecting **Two questions** of equal marks from each section. However, a question may have sub-parts (not exceeding four sub- parts) and appropriate allocation of marks should be done for each sub-part.
3. Candidates shall attempt **Five questions** in all, by at least selecting **One question** from each section and the **5th question** may be attempted from any of the **Four sections**.
4. The question paper should be strictly according to the instructions mentioned above. In no case a question should be asked outside the syllabus.

Course Objectives: To have a basic understanding and sensitiveness towards urban heritage and culture

- The course is an introductory guide to the multi dimensions of heritage and culture
- It will enable students and equip students to obtain a concrete knowledge of heritage and culture and instill in them some of the great values of it.

SECTION A

Defining heritage and culture – concepts, types – tangible and intangible heritage and culture- music, folk, dance in context of culture, Natural heritage conservation and built heritage

SECTION B

Importance of Culture, its importance and its types, heritage and development issues; conservation strategies- old city, inner areas, cases and concept of listing

SECTION C

Heritage and Culture Organization like INTACH, ASI, DUAC, etc. Concept of Heritage Zones, SDG goal on Heritage and Culture and its relevance

SECTION D

Case studies of heritage sites Global and Indian Context undertaken by various agencies. Community participation in heritage conservation

Course Outcome:

- By the end of the course, the students will be able to understand the heritage and culture around them and will have awareness about it.
- The course provides broad outline to enhance their knowledge and enhance their skill of being sensitive to the heritage and culture around them and to be sensitive towards it.

Suggested Readings:

1. Descamps, Françoise. (2011). The conservation of historic cities and urban settlement initiative. Conservation Perspective, the GCI News Letter, 26(2): 16-17.
2. Evans, Brian and McDonald, Frank. (Eds.). (2011). Space, place, life, learning from place. London: Routledge.
3. Fainstein, S. (2012). "Readings in Planning Theory", 3rd Edition, Blackwell Publishing, Oxford.
4. Feilden, BM and Jokilehto. Jikka (1998). "Management Guidelines for World Cultural Heritage Sites", Rome, ICCROM.
5. Feilden, B. M. (1989). "Guidelines for Conservation: A Technical Manual", New Delhi.
6. Lynch, K (1960). "The image of the City", Cambridge, MIT
7. Meller, Helen. Patrick Geddes (1990). "Social Evolutionist and City Planner", Routledge, London.
8. Mynor, Charles (1989). "Listed Buildings and Conservation Areas", Longman, London.
9. Peter, Hall P. (2014). "Cities of Tomorrow: An Intellectual History of Urban Planning and Design Since 1880", Wiley and sons, Hoboken.

(Semester–II)

Course Title: Housing and Shelter

Course Code: ODSCC212T

Time: 03 Hours

Max. Marks: 100 Marks

Internal Assessment: 30 Marks

End Term: 70 Marks

Instructions for the Paper-Setter/examiner:

1. Question paper shall consist of **Four sections**.
2. Paper setter shall set **Eight questions** in all by selecting **Two questions** of equal marks from each section. However, a question may have sub-parts (not exceeding four sub- parts) and appropriate allocation of marks should be done for each sub-part.
3. Candidates shall attempt **Five questions** in all, by at least selecting **One question** from each section and the **5th question** may be attempted from any of the **Four sections**.
4. The question paper should be strictly according to the instructions mentioned above. In no case a question should be asked outside the syllabus.

Course Objectives: The course's objectives are to provide students with an understanding of the nature of housing problems, different terminologies involved in housing, understanding the process, and financial outreach in housing.

SECTION A

Housing definition and subject matter, housing issues; Housing need, demand, and supply, and factors affecting them; Urban housing scenario in India.

SECTION B

Slums; Unauthorized colonies; Affordable housing and its components; methodologies of cost reduction in housing, Eco-friendly building materials (Indigenous, agricultural, industrial, others).

SECTION C

Concepts of neighborhood planning, elements of neighborhood structure; Processes of housing development.

SECTION D

Role of housing finance, formal and informal housing finance, National Housing and Habitat Policy, United Nations- Sustainable Development Goals.

Course Outcomes: By the end of the course, students should be able to:

- Articulate the relationship between housing demand, need, and supply and their determinants.
- Different concepts of neighborhood planning.
- Importance of Housing in SDG.

Suggested Readings:

1. Jain, A.K. (2019) Housing for all, Khanna Book Publishing Co., New Delhi.
2. Aldrich, B.C and Sandhu, R. S, (2015). Housing for the urban poor in developing countries, Rawat Publications, Jaipur.
3. Ling, J and Ronald, R, (2014). Housing East Asia, Macmillan, N.York.
4. Banarjee, A.V and E. Duflo. (2013). Poor economics, Random house limited, London.
5. Chattopadhyay, S. (2009). New Essays on inclusive housing, Macmillan, Delhi.
6. Kohli, V.K. (2007) Housing Finance Agencies in India, Deep and Deep, New Delhi.
7. Jenkins, P., Smith, H. and Wang, Y.P. (2007) Planning and Housing in the Rapidly Urbanizing World, Routledge, New York.
8. Dwivedi, R. M. (2007). Urban Development and Housing in India 1947 to 2007, New Century Publications, New Delhi.
9. G. Payne, G. (1999). Making Common Ground, Intermediate Technology Publications, Ltd, London.
10. Mathey, K. (1992). Beyond Self-help Housing, Mansell Publishing Ltd., London.
11. Aromar, R. (1990). Shelter in India- Sustainable Development Series, StosiusInc, Advent Books Division.
12. Hardoy, J. and Satterthwaite, D. (1989). Squatter Citizen, Earthscan Publications, London.
13. T. Poulouse, T. (1989). Reading Material on Housing, ITPI Publication, New Delhi

(Semester–II)

Course Title: Public Policy and Community Participation

Course Code: ODSCC213T

Time: 03 Hours

Max. Marks: 100 Marks

Internal Assessment: 30 Marks

End Term: 70 Marks

Instructions for the Paper-Setter/examiner:

1. Question paper shall consist of **Four sections**.
2. Paper setter shall set **Eight questions** in all by selecting **Two questions** of equal marks from each section. However, a question may have sub-parts (not exceeding four sub- parts) and appropriate allocation of marks should be done for each sub-part.
3. Candidates shall attempt **Five questions** in all, by at least selecting **One question** from each section and the **5th question** may be attempted from any of the **Four sections**.
4. The question paper should be strictly according to the instructions mentioned above. In no case a question should be asked outside the syllabus.

Course Objectives: Introduction of basics of public policy and its impact on society, explore how policies shape communities and urban environments, equip students with tools for promoting community engagement in decisions, highlight successful examples of community-led initiatives in policy.

Section – A

Meaning and significance of public policy; components, forms, and the policy cycle, Role of public policies

Section – B

Welfarist planning policies, neoliberal urbanism, gentrification, and the Right to the City, Challenges and methods of policy implementation and evaluation.

Section – C

Approaches to community participation and participatory budgeting, Evaluation tools to assess the effectiveness of public participation for successful community engagement.

Section – D

Integrating sustainable development goals with community participation and public policy, Case studies of successful community-driven policy initiatives.

Course Outcomes:

- Understand the key concepts and processes behind public decision-making.
- Analyze the effects of different policies on communities and urban development.
- Develop skills in community involvement and collaborative decision-making.
- Learn methods to evaluate the success of community participation in policy outcomes.

Suggested Readings:

1. Carmon, N. and Fainstein, S.S. (2013) Policy, Planning, and People: Promoting Justice in Urban Development, University of Pennsylvania Press, Philadelphia, PA.
2. The Effectiveness of Community Participation In Planning And Urban Development (2008).
3. Fischer, F., Miller, G.J., and Sidney, M.S. (2006) Handbook of Public Policy Analysis: Theory, Politics, and Methods, CRC Press, London.
4. Moran, M., Rein, M. and Goodin, R.E. (2008) The Oxford Handbook of Public Policy, Oxford University Press, Oxford.
5. Robinson Jerry W (2011). Introduction to Community Development: Theory, Practice and Service Learning, Sage Publications Ltd.
6. Sanoff Henry, John (2000). Community Participation Methods in Design and Planning: Wiley & Sons, New York, 2000, 306 pp.

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(Semester–II)

Course Title: Project Report

Course Code: ODSCC214P

Max. Marks: 100 Marks

Credit–4

Each student shall be assigned a theme to write a report on the basis of the courses carried out during the semester. He/she will have to select the theme in confirmation with the Course Coordinator and write the report by the end of the semester and submit accordingly to the Course Coordinator.