I Semester

	PLANNING STUDIO-I			
	Course Code	2BPLN101	Scheme	2026
	Type of Course	**IPCC**	Semester	**I**
	Teaching Hours/Week (L:T:P)	2:0:8	CIE Marks	50
	Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	28:00:112:00:40	SEE Marks	50
	Credits	**6**	Total Marks	100
	Examination type (SEE)	Viva Voce	Exam Hours	-

Course outcome (Course Skill Set)

At the end of the course, the student will be able to:
The first-semester will focus on understanding basic terminologies in planning through study of different areas. It would also focus on developing observation and mapping skills and presentation.

Teaching-Learning Process (General Instructions)

These are sample Strategies, which teachers can use to accelerate the attainment of the various course outcomes.

- Planning requires hands-on experience to utilize the knowledge gained out of theoretical subjects. This is done through exposure to site visits and site studies
- The faculty can make the students think based on small activity based exercises and projects, manual sheets are to be prepared.

Course Content

The students are required to undertake practical exercises as follows:

Grade of lines, free hand sketching of solids, cones, cubes, cylinders, spheres; Free hand sketch of various settlement elements – electric poles, street features, trees, shrubs, bus stop physical and natural features.

Basic elements of maps, components and presentation; Type of maps - study of large-scale, small-scale maps; **Land use maps of cities** (tracing of maps and understanding of concept of scale); Scales: Simple Scale, Graphic Scale, Representative Fraction, Diagonal Scale, Vernier Scale.

Number of Hours: 20

Elements of a city: Understanding various building blocks of a city; Developing understanding about city planning elements using movies, lectures and city tours

Distance and Area Perception: Developing an understanding about distance and area and translating the same to scale on drawings.

Number of Hours: 20

Different theme maps census map series, geographical maps, components of working drawings of a site, buildings; Generation of theme maps from base map; Demonstration of use of statistical data on maps-pictographically, graph.

Preparation of a base of a city; Copying an existing map and Generating map from other sources; Land Use types, signs and symbols used for different types of maps; Map presentation with colors.

Number of Hours: 30

Space Perception: Study of areas with varying characters to appreciate the concepts of built form, activities and people. Appreciate various elements of built form such as plot sizes, FAR, densities, building heights and open spaces; Understanding how built form supports various activities in different areas.

Number of Hours: 30

Neighbourhood Perception: Mapping of a neighbourhood and appreciating the basic characteristics of a neighbourhood; Creation of base maps, recording and presenting information on maps, both manually and digitally.

Number of Hours: 40

Course Outcomes: Upon the completion of this course, the students would be able:
CO1: To develop an understanding of the key components of a city and show familiarity with the basic planning terminologies.
CO2:. To show understanding of different patterns and forms that forms the physical fabric of a city.
CO3: To express awareness of planners' sensibilities.
CO4: To develop skills to prepare technical drawings and maps for small areas.
CO5: To develop the ability to visualize areas in two and three dimensions and draw them accurately.

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

1. Strahler A.H. and Strahler A.N. (2001). Modern Physical Geography (Fourth Edition), John Wiley and Sons, Inc., New York.
2. Khullar D.R. (1999). Essentials of Practical Geography. New Academic Publishing Co., Jalandhar.
3. Singh R.L. and Rana P.B. (1998). Elements of Practical Geography. Kalyani Publishers, New Delhi.
4. Monkhouse and Wilkinson (1964). Maps and Diagrams. Methuen and Co., London.
5. Walton D.S. (2023). Urban Mapping Guide: Tips and Techniques. Thomas Telford Publishing, London.
6. Terry A. Slocum, Robert B. McMaster, Fritz C. Kessler, Hugh H. Howard (2023). Thematic Cartography and Geo-visualization. Taylor and Francis Group, London.
7. Monmonier M. (2022). Elemental Maps: Thematic Mapping in the 21st Century. Syracuse University, New York.

Web links and Video Lectures (e-Resources):
- **https://www.my-mooc.com/en/categorie/urban-planning**
- **https://www.youtube.com/watch?v=knUerjiLmNw**

Suggested Learning Activities:
Practical field based exercises to be undertaken, studios help students to work in teams, and get acquainted with live case areas and their problems and help them prepare a professional plan that is relevant to the residents and local bodies, also enables them to critically analyse the area around them and appreciate the same.

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 **40% of maximum marks for CIE**.

- To pass the **SEE**, a student must score at least **35 % 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 **40% out of 100 marks**.

Continuous Internal Evaluation (CIE):

Continuous Internal Evaluation (CIE): The CIE marks awarded in case of Studio shall be based on the weekly evaluation of progress of the studio works after the conduct of every Presentation

Semester End Examination (SEE):
Planning Studio SEE will be conducted by the University as per the scheduled timetable, in a batch-wise manner, with One External examiner and One Internal Examiner (appointed by the University) reviewing the students' work through Viva voce.

I Semester

	CITIES IN HISTORY			
	Course Code	2BPLN102	Scheme	**2026**
	Type of Course	**PCC**	Semester	I
	Teaching Hours/Week (L:T:P)	3:0:0	CIE Marks	50
	Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42:00:00:00:48	SEE Marks	50
	Credits	**3**	Total Marks	100
	Examination type (SEE)	Theory	Exam Hours	3
	Course Objective: (Course Skill Set) ● History informs the present in various ways. The chief objective of this subject is to understand historical processes of human settlements and development of different patterns. ● To understand common characteristics of settlements in different time periods, and to appreciate influences of political, economic, technological, social and cultural factors in shaping the city and its role in shaping these societal processes.			
	Module 1			
	Historical Perspectives : The importance of studying historical processes, articulating history for the cause of planning purposes; Place making in history from caves to agrarian society; the historical context of urbanization; Town planning considerations in ancient India: Site selection and planning process from ancient texts and treatises; Classification of ancient Indian settlements Number of Hours: 8 Hours			
	Module 2			
	Characteristics of Settlements in Different Civilizations: Characteristics of cities and planning considerations in ancient classic civilizations: Mesopotamian urban civilization, Egyptian urban civilization, Indus Valley urban Civilization, Chinese urban civilization, Greek urban civilization and Roman urban civilization; Cosmopolitan Planning; Medieval Town Planning and renaissance in Europe: case studies; Industrial revolution and its impact on city planning in Europe Number of Hours: 8 Hours			
	Module 3			
	Indian Planning in Medieval Era: Pre-Medieval Planning in India; Medieval Town Planning in India and influence of Indo-Saracenic culture: (case studies: Fatehpur Sikri; Shahjahanabad); Post-medieval town planning: Sikh towns, Site selection and characteristics: Case Studies from India; Principles of British Colonial settlement planning in India Number of Hours: 8 Hours			
	Module-4			
	Planning Concepts: Town Improvement and City Beautiful Movements; Planning Thought: Ebenezer Howard- Concept of Garden City, Planning Philosophy of Patrick Geddes, Patrick Abercrombie- Planning Philosophy and surveys to be performed for planning, Sorya Y. Mata- Linear city, Tony Garnier: Concept of Industrial City, Planning concepts of Le Corbusier, Clarence Arthur Perry- Principles of Neighbourhood planning and Design, F.L. Wright- Broadacre City; Number of Hours: 10 Hours			
	Module-5			
	Contemporary Planning Concepts: New Towns in India: Chandigarh, Gandhinagar, Auroville; Industrial Towns Movement in India, Case Study- Rourkela, Jamshedpur. Capital Cities in India: Case study- Bhubaneswar; Metropolitan and regional planning – Mumbai Metropolitan Region, Transit-Oriented Development – examples: Delhi Metro and Ahmedabad; Number of Hours: 8 Hours			

Course Outcomes: Upon the completion of this course, the students will be able
CO1: Explain the historical evolution of settlements, urbanization, and planning principles in ancient India.
CO2: Analyse the characteristics and planning principles of settlements across major civilizations and historical periods.
CO3: Examine the evolution of medieval, post-medieval, and colonial town planning in India.
CO4: Apply the concepts and philosophies of major planning thinkers and planning movements to different urban contexts.
CO5: Evaluate contemporary planning concepts through selected Indian case studies of new towns, industrial towns, capital cities, metropolitan regions, and transit-oriented development.

Suggested Learning Resources:

References:

1. Macionis, John J. and Parrillo, Vincent N. (2024). *Cities and Urban Life* (8th Edition). Pearson Education, New York.
2. Singhal, M. (2021). *Planning of towns and cities: Past approaches and current practices* (1st ed.). Copal Publishing Group.
3. Singh Satvir (2019). *Settlement Patterns and Planning in India*. Akinik Publications, Delhi.
4. Morris A.E.J. (2013). *History of Urban Form*, Routledge, London.
5. Kenoyer, J. (1998). *Ancient Cities of the Indus Valley Civilization*, Oxford University Press, New Delhi.
6. Hall, Peter (2014). *Cities of Tomorrow: An Intellectual History of Urban Planning and Design Since 1880* (4th Edition). Wiley-Blackwell, Oxford.
7. Allmendinger, P. (2017). *Planning Theory*. Macmillan, London.
8. Fainstein S. (2012). *Readings in Planning Theory*. Blackwell Publishing, Oxford.
9. Pojani Dorina (2023). *Alternative Planning History and Theory*. Routledge, London.
10. Beauregard Robert A. (2020). *Advanced Introduction to Planning Theory*. Edward Elgar Publishing, Cheltenham.

Web links and Video Lectures (e-Resources):

- https://ndl.iitkgp.ac.in
- https://www.my-mooc.com/en/categorie/urban-planning
- https://www.youtube.com/watch?v=H1jHdnZ2U3o

Suggested Learning Activities:

- Heritage documentation and field-based learning exercises.
- Preparation of posters/models illustrating planning concepts.
- Case study analysis of historic and planned cities.

Seminars on planning theories, movements, and planning thinkers.

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 **40%** (40 marks out of 100) **of maximum marks for CIE**.
- To pass the **SEE**, a student must score at least **35%** (35 marks out of 100 marks) **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 **40 out of 100 marks**.

Continuous Internal Evaluation (CIE):

- Methods of CIE suggested: MCQ, Written Quizzes, Open book test, Closed book test, Seminar or micro project, etc.,

The class teacher has to decide the topic for closed book test, open book test, Written Quiz or Seminar and has to announce the methods of CIE for the subject in the first week itself.

Semester End Examination (SEE):

- Theory SEE will be conducted as per VTU rules and scheduled time table, with common question papers for the subject.
  - The question paper will have ten questions. Each question is set for 20 marks.
  - There will be 2 questions from each module. Each of the two questions under a module (with a maximum of 3 sub questions), should have a mix of topics under that module.
  - The students have to answer 5 full questions, selecting one full question from each module

Marks scored by the students out of 100 marks will be proportionally scaled down to 50 marks

I Semester

	TECHNIQUES OF PLANNING			
	Course Code	2BPLN103	Scheme	2026
	Type of Course	**PCC**	Semester	I
	Teaching Hours/Week (L:T:P)	4:0:0	CIE Marks	50
	Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	28:00:28:00:34	SEE Marks	50
	Credits	**3**	Total Marks	100
	Examination type (SEE)	Theory	Exam Hours	3
	Course Objective: (Course Skill Set) ● To know the data requirements for planning and undertake surveys and map data collected for a neighbourhood and a city and present it coherently and analytically. ● To list the data sets required for undertaking studies for different types and levels of planning; ● To collect and interpret different types of data; ● To list the steps in analyzing the trends of various spatial and non-spatial variables; and ● To learn the basic protocols of data representation.			
	Module 1			
	Types of Data and Sources of Data for Planning: Understanding the difference between data, information and knowledge; Distinction between facts and opinions; Reliable sources of data and information; Data requirements for urban and regional planning; Sources of primary and secondary data; Overview of data availability from different sources including Census of India, NSSO, etc. Number of Hours: 10 Hours			
	Module 2			
	Data Collection Methods : Socio-Economic Surveys Questionnaire design, design of sample surveys, types of sampling, measurement scales, data coding and data verification; Qualitative data collection methods: focus group surveys, individual interviews, observations, ethnographic methods; Validity and reliability of data. Number of Hours: 12 Hours			
	Module 3			
	Data Collection Methods : Physical Surveys and Mapping Physical surveys for the preparation of base maps at different scales, contents of base maps; Land use classifications; Techniques for conducting field surveys for land use, building use, density and other surveys needed for planning; Use of information, communication and technology (ICT) based data collection methods. Number of Hours: 12 Hours			
	Module-4			

Data Analysis, reasoning and relationships: Data tabulation, statistical methods, frequency distribution, classification, mean, median, mode, correlation, content analysis, Land Use classification system, planning standards, population and economic analysis, Land Suitability analysis, housing analysis, development of indicators.

Number of Hours: 12 Hours

Module-5

Data Presentation: Preparation of tables and charts; Interpreting statistical, qualitative and spatial data to identify trends, patterns and processes; Communication of data through presentations, reports, etc. Land Use and land cover classification and coding at various levels; Basic protocols of illustrations.

Number of Hours: 10 Hours

Course outcome (Course Skill Set)

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

CO1: Identify appropriate types and sources of data required for urban and regional planning.

CO2: Apply appropriate data collection and sampling techniques to obtain valid and reliable socio-economic and qualitative data.

CO3: Conduct physical surveys and mapping to generate spatial data for land use, building use, density, and other planning requirements.

CO4: Analyse planning data using statistical and spatial methods to derive meaningful relationships, trends, and indicators.

CO5: Present analysed planning data through appropriate tables, charts, maps, and illustrations for effective communication.

Suggested Learning Resources:

References:

1. Berke, P.R. and Goodschalk, D.R., Kaiser, E.J. and Rodriguez, D.A. (2006) Urban Land Use Planning, University of Illinois Press, Champaign, Illinois. Fifth Edition.
2. Dandekar, H.C. (ed.) (2019) The Planner's Use of Information, Routledge, New York. Third Edition.
3. Guthrie, G. (2010) Basic Research Methods: An Entry to Social Science Research, Sage, Los Angeles.
4. Krueckeberg, D.A. and Silvers, A.L. (1974) Urban Planning Analysis: Methods and Models, Wiley, London. 5. Monmonier, M. (1996) How to Lie with Maps, University of Chicago Press, Chicago. 6. Wang, X., Rainer, A. and Hofe, V. (2007) Research Methods in Urban and Regional Planning, Springer, Berlin

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 **40%** (40 marks out of 100) **of maximum marks for CIE**.
- To pass the **SEE**, a student must score at least **35%** (35 marks out of 100 marks) **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 **40 out of 100 marks**.

Continuous Internal Evaluation (CIE):

- Methods of CIE suggested: MCQ, Written Quizzes, Open book test, Closed book test, Seminar or micro project, etc.,

The class teacher has to decide the topic for closed book test, open book test, Written Quiz and Seminar. In the beginning only the teacher has to announce the methods of CIE for the subject.

Semester End Examination (SEE):

- Theory SEE will be conducted as per VTU rules and scheduled time table, with common question papers for the subject.
  - The question paper will have ten questions. Each question is set for 20 marks.
  - There will be 2 questions from each module. Each of the two questions under a module (with a maximum of 3 sub questions), should have a mix of topics under that module.
  - The students have to answer 5 full questions, selecting one full question from each module

Marks scored by the students out of 100 marks will be proportionally scaled down to 50 marks

I Semester

	SOCIAL-CULTURAL AND ECONOMIC ASPECTS OF SETTLEMENTS			
	Course Code	2BPLN104	Scheme	2026
	Type of Course	**PSC**	Semester	I
	Teaching Hours/Week (L:T:P)	3:0:0	CIE Marks	50
	Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42:00:00:00:48	SEE Marks	50
	Credits	**3**	Total Marks	100
	Examination type (SEE)	Theory	Exam Hours	3
	Course Objective: (Course Skill Set) • To understand the interrelation between social, cultural, and economic aspects in shaping settlements. • To analyse the impact of social structures and economic systems on urban development. • To develop strategies for promoting social equity, cultural preservation, and economic sustainability in urban planning. • To enhance skills in analyzing and interpreting social and economic data for planning processes			
	Teaching-Learning Process (General Instructions)			
	These are sample Strategies, which teachers can use to accelerate the attainment of the various course outcomes. • Innovative lecture methodologies to be adapted to improve the teaching and learning process • Short videos for better understanding of ancient cities in history • Encourage collaborative (Group Learning) learning in the class • Ask at least three HOT (Higher Order Thinking) questions in the class, which promotes critical thinking			
	Module 1			
	Introduction to Social and Cultural Aspects of Settlements: Definition and evolution of human settlements: rural to urban transitions; Understanding community, society, and social structure in urban contexts; Cultural dynamics in settlements: traditions, heritage, and spatial identity; Influence of religion, ethnicity, and social norms on settlement patterns; Case studies on culturally significant settlements and their preservation. Number of Hours: 8 Hours			
	Module 2			

	Definition and symbols of culture: Concepts of beauty and ugliness; Classical theories of aesthetics; Relationship of aesthetics with other cultural values; Concepts of scale, space, form and structure. Concept of time as dimension of the built form; concept of space and scale as followed through different cultures; the elements of the town, the house, the street, the chowk; social and cultural criteria of location of towns and activities within it Number of Hours: 8 Hours
	Module 3
	Social Issues in Urban Planning : Urbanization and its social impacts: migration, diversity, and social integration; Issues of social inequality, segregation, and gentrification in cities; Planning for inclusive settlements: gender, age, and differently- abled perspectives; Role of community participation and social capital in sustainable settlements; Policies and frameworks promoting social justice in urban development. Number of Hours: 8 Hours
	Module-4
	Economic Aspects of Settlements: Introduction to urban economies: formal and informal sectors; Role of industries, services, and markets in shaping settlements; Employment patterns, income distribution, and economic disparities; The impact of globalization and economic policies on urban growth; Case studies of economic drivers urban transformations. Number of Hours: 8 Hours
	Module-5
	Integrated Social-Economic Planning for Sustainable Settlements: Strategies for integrating social and economic considerations in urban planning; Planning for affordable housing, livelihoods, and basic services; Role of local governance, NGOs, and community organizations in settlement development; Measuring social and economic sustainability: indicators and methodologies. Best practices and case studies of successful integrated urban development. Number of Hours: 10 Hours
	Course outcome (Course Skill Set) At the end of the course, the student will be able to : **CO1:** Explain the social and cultural evolution of human settlements and their influence on settlement patterns. **CO2:** Analyse the relationship between culture, aesthetics, space, scale, form, and the built environment. **CO3:** Examine social issues and apply principles of inclusive and socially just urban planning. **CO4:** Analyse the economic factors influencing settlement development, employment, markets, and urban transformation. **CO5:** Apply integrated social and economic planning strategies for sustainable and inclusive settlements.

Suggested Learning Resources:

References:

1. Gehl J. (2010). Cities for People. Island Press, Washington D.C.
2. Jacobs J. (1992). The Death and Life of Great American Cities. Vintage, New York.
3. Dholakia J.R. (2017). Perspectives on Inclusive Growth in India: The Social Fabric of Cities. Taylor and Francis, London.
4. Kleniewski N. and Alexander R. Thomas (2019). Cities, Change and Conflict. Taylor and Francis, London.
5. Smith David M. (2023). Urban Sociology: A Global Introduction. Cambridge University Press, New Delhi.
6. Held D. and Henrietta L. L. L. (2022). The Social and Cultural Construction of Risk: Shifting Cultures in a Globalizing World. Cambridge University Press, New Delhi.
7. Hargrove John M. (2023). Sociology of Urban and Rural Settlement: Understanding the Interplay of Space, Society, and Economy. University of Chicago Press, Chicago.

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 **40%** (40 marks out of 100) **of maximum marks for CIE**.
- To pass the **SEE**, a student must score at least **35%** (35 marks out of 100 marks) **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 **40 out of 100 marks**.

Continuous Internal Evaluation (CIE):

- Methods of CIE suggested: MCQ, Written Quizzes, Open book test, Closed book test, Seminar or micro project, etc.,

The class teacher has to decide the topic for closed book test, open book test, Written Quiz and Seminar. In the beginning only the teacher has to announce the methods of CIE for the subject.

Semester End Examination (SEE):

- Theory SEE will be conducted as per VTU rules and scheduled time table, with common question papers for the subject.
  - The question paper will have ten questions. Each question is set for 20 marks.
  - There will be 2 questions from each module. Each of the two questions under a module (with a maximum of 3 sub questions), should have a mix of topics under that module.
  - The students have to answer 5 full questions, selecting one full question from each module

Marks scored by the students out of 100 marks will be proportionally scaled down to 50 marks

I Semester

	DIGITAL TOOLS I			
	Course Code	2BPLN105	Scheme	2026
	Type of Course	PCCL	Semester	I
	Teaching Hours/Week (L:T:P)	3:0:0	CIE Marks	100
	Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42:00:00:00:48	SEE Marks	00
	Credits	**3**	Total Marks	100
	Examination type (SEE)	-	Exam Hours	-
	Teaching-Learning Process (General Instructions)			
	These are sample Strategies, which teachers can use to accelerate the attainment of the various course outcomes. • Innovative lecture methodologies to be adapted to improve the teaching and learning process • Short videos for better understanding of ancient cities in history • Encourage collaborative (Group Learning) learning in the class			
	Module-1: Introduction to Computers in Planning			
	Introduction to Computers and its application in Planning; Various Software packages- MS Suite (Word, Excel & Powerpoint), Utility of computers in planning assignments, Current trends in Planning Profession with respect to usage of computer application. Number of Hours: 8 Hours			

	Module-2: Data structures
	Microsoft Office Suite- Word, Excel, Powerpoint for data handling. Data structuring, formatting, creating of tables, charts for data presentation and analysis. Google Earth and Open source mapping softwares for remote sensing. Number of Hours: 8 Hours
	Module-3: AI in Planning – Applications
	Introduction to AI & its historical evolution. Applications of AI in Urban Planning, including tasks of data compilation, fragmentation and analysis, Documentation and workflow automation. Opportunities, benefits, and emerging challenges AI presents to planning practice. Familiarizing students with contemporary AI platforms and tools, including: o Conversational AI assistants. o Text-to-image generation tools. o Image-to-image editing tools. o Emerging AI-powered video generation technologies. Introduction of AI as a collaborative design partner that supports, rather than replaces, human creativity. Number of Hours: 9 Hours
	Module-4: Generative AI
	Introduces the conceptual working principles of generative AI without requiring programming knowledge. • Explains the "black box" of AI sufficiently for students to critically interpret and evaluate AI-generated outputs. • Describes the working of form models using simple diagrams and real-world analogies. • Introduces generative video and motion generation as an extension of probabilistic AI models over time. • Places generative AI within the broader context of computational and digital design workflows. • Differentiates between rule-based computational design and generative AI, emphasizing that AI learns patterns rather than explicit rules. Number of Hours: 9 Hours
	Module-5: Computer Aided Mapping
	Unit 4: Introduction to AutoCAD Concept of Mapping and Drafting techniques; Introduction to AutoCAD; Understand the fundamental concepts and the terminologies used in CAD; Tools for digitization; Modifying tools; Layer creation and management; Creating Blocks; Annotation; Scaling; Plotting and Printing and hand-on exercises. Number of Hours: 8 Hours

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 **40%** (40 marks out of 100) **of maximum marks for CIE**.
- To pass the **SEE**, a student must score at least **35%** (35 marks out of 100 marks) **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 **40 out of 100 marks**.

Continuous Internal Evaluation (CIE):

- Methods of CIE suggested: Lab test, assignments and seminar

The class teacher has to decide the type of assignment In the beginning only the teacher has to announce the methods of CIE for the subject.

I Semester

	QUALITATIVE AND QUANTITATIVE METHODS IN PLANNING			
	Course Code	2BPLN106	Scheme	2026
	Type of Course	**PSC**	Semester	I
	Teaching Hours/Week (L:T:P)	2:0:0	CIE Marks	50
	Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	28:00:00:00:32	SEE Marks	50
	Credits	**2**	Total Marks	100
	Examination type (SEE)	Theory	Exam Hours	3

Course Objective: (Course Skill Set)

- To collect, interpret and use, fair and ethical data for decision making in urban planning.
- To expose students to the fundamentals of data handling and management in urban planning

Module 1

Data in Planning: The need for data in planning; types of data- Primary and secondary, qualitative and quantitative; Survey and structured Data: census of India data, SECC, the National Sample Survey Office (NSSO); open-source data; public portals, open data repositories; urban data access portals: City/ Public Dashboards; scales of urban data, formats of data.

Number of Hours: 4 Hours

Module 2

Ethical Data Collection: Sampling, Measurement and Scaling Techniques

Sampling design (qualitative and quantitative), characteristics of measurement scales; errors in measurement; types of measurement scale; conventional scaling: and unconventional scaling; comparative scaling: paired comparison, rank order, constant sum, Q sort; non-comparative scaling: continuous rating, itemized rating, Likert scale, semantic differential scale and staple scale.

Number of Hours: 6 Hours

Module 3

Ethical Data Collection: Conventional Methods for Qualitative and Quantitative Data

Social research surveys: Structured Observation, interviewing (open, semi-structured and structured), focus group discussions, questionnaire design and schedules; case-study method; documents as source of data; media analysis; Techniques of Conducting socio-economic Surveys;

Physical and spatial surveys: Land and land use survey; built-up survey; infrastructure and road inventory; and Specialised surveys: accessibility surveys; urban safety surveys; Urban Forest/landscape Inventory; ethics in data collection: reliability, reproducibility, interoperability and acknowledgement; rights and privacy issues.

Number of Hours: 6 Hours

Module-4

Data Analysis: Conventional Methods- Using demonstration methods (hands-on) through the basic use of software and tools (MS Excel, OpenOffice.org., etc.), the students to be taught basics of data preparation and data tabulation, data cleaning and adjustment;

Descriptive statistical analysis: trends, groupings, frequency distribution, classification, mean, median, mode (central tendencies), measures of dispersion, measures of relationship, regression and correlation; Document analysis and content analysis for qualitative data analysis.

Number of Hours: 6 Hours

Module-5

Visualisation of Data and Citizen Engagement: Conventional techniques of data visualisation like frequency tables, cross-tabulation tables, Bar charts, line graphs, pie-charts, scatter graphs etc.; word clouds, word frequency charts, etc; Narrative Techniques for Urban Data Visualisation; Basic principles of

Participatory Action Planning (PAP); Community Workshops, Public Meetings & Town Hall Forums; use of technology in citizen engagement.; fundamentals of crowdsourced Information for Urban Planning, citizen sciences and AI in PAP; Civic, tacit and traditional knowledge in communities as data.

Number of Hours: 6 Hours

Course outcome (Course Skill Set)

Upon the completion of this course, the students will be able

CO1: Identify appropriate sources, methods, and techniques for data collection and presentation.
CO2: Apply ethical qualitative and quantitative survey methods for planning studies.
CO3: Apply statistical inference techniques for analysing planning data.
CO4: Analyse planning data using statistical methods and software tools.
CO5: Develop data visualizations and participatory techniques for citizen engagement.

Suggested Learning Resources:

References:

1. Bryman A. (2016). Social Research Methods. Oxford University Press, London.
2. Kothari C. R. (2004). Research Methodology: Methods and Techniques. New Age International, New Delhi.
3. Wang L. (2021). Data analytics and modelling accessibility change of high-speed rail network development: a door-to-door approach. SAGE Publications Ltd, New Delhi.
4. Rae A. & Wong C. (2021). Applied data analysis for urban planning and management. SAGE Publications Ltd., New Delhi.
5. Anandhi and Snehasis Mishra (2022). Handbook of Land Survey in India. Shipra Publications, New Delhi.

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 **40%** (40 marks out of 100) **of maximum marks for CIE**.
- To pass the **SEE**, a student must score at least **35%** (35 marks out of 100 marks) **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 **40 out of 100 marks**.

Continuous Internal Evaluation (CIE):

- Methods of CIE suggested: MCQ, Written Quizzes, Open book test, Closed book test, Seminar or micro project, etc.,

The class teacher has to decide the topic for closed book test, open book test, Written Quiz and Seminar. In the beginning only the teacher has to announce the methods of CIE for the subject.

Semester End Examination (SEE):

- Theory SEE will be conducted as per VTU rules and scheduled time table, with common question papers for the subject.
  - The question paper will have ten questions. Each question is set for 20 marks.
  - There will be 2 questions from each module. Each of the two questions under a module (with a maximum of 3 sub questions), should have a mix of topics under that module.
  - The students have to answer 5 full questions, selecting one full question from each module

Marks scored by the students out of 100 marks will be proportionally scaled down to 50 marks

Communicative English

Course Title:	**Communicative English**		
Course Code:	**22ENG16**	CIE Marks	50
Course Type (Theory/Practical /Integrated)	Theory	SEE Marks	
		Total Marks	
Teaching Hours/Week (L:T:P: S)	1:0:0:0	Exam Hours	
Total Hours of Pedagogy	15 hours	Credits	

Course objectives: The course Communicative English (22ENG16) will enable the students,

1. To know about Fundamentals of Communicative English and Communication Skills in general.
2. To train to identify the nuances of phonetics, intonation and enhance pronunciation skills for better Communication skills.
3. To impart basic English grammar and essentials of important language skills.
4. To enhance with English vocabulary and language proficiency for better communication skills.
5. To learn about Techniques of Information Transfer through presentation.

Teaching-Learning Process :

These are sample Strategies, which teacher can use to accelerate the attainment of the various course outcomes and make Teaching –Learning more effective:

Teachers shall adopt suitable pedagogy for effective teaching - learning process. The pedagogy shall involve the combination of different methodologies which suit modern technological tools and software's to meet the present requirements of the Global employment market.

(i) Direct instructional method (Low/Old Technology), (ii) Flipped classrooms (High/advanced Technological tools), (iii) Blended learning (Combination of both), (iv) Enquiry and evaluation based learning,
(v) Personalized learning, (vi) Problems based learning through discussion, (vii) Following the method of expeditionary learning Tools and techniques, (viii) Use of audio visual methods through language Labs in teaching of of LSRW skills.

Apart from conventional lecture methods, various types of innovative teaching techniques through videos, animation films may be adapted so that the delivered lesson can progress the students In theoretical applied and practical skills in teaching of communicative skills in general.

Language Lab : To augment LSRW, grammar and Vocabulary skills (Listening, Speaking, Reading, Writing and Grammar, Vocabulary) through tests, activities, exercises etc., comprehensive web-based learning and assessment systems can be referred as per the AICTE / VTU guidelines.

Module-1 **(03 hours of pedagogy)**

Introduction to Communicative English : Communicative English, Fundamentals of Communicative English, Process of Communication, Barriers to Effective Communicative English, Different styles and levels in Communicative English. Interpersonal and Intrapersonal Communication Skills.

Module-2 **(03 hours of pedagogy)**

Introduction to Phonetics : Phonetic Transcription, English Pronunciation, Pronunciation Guidelines to consonants and vowels, Sounds Mispronounced, Silent and Non silent Letters, Syllables and Structure. Word Accent, Stress Shift and Intonation, Spelling Rules and Words often Misspelt. Common Errors in Pronunciation.

Module-3 **(03 hours of pedagogy)**

Basic English Communicative Grammar and Vocabulary PART - I : Grammar: Basic English Grammar and Parts of Speech, Articles and Preposition. Question Tags, One Word Substitutes, Strong and Weak forms of words, Introduction to Vocabulary, All Types of Vocabulary – Exercises on it.

Module-4 **(03 hours of pedagogy)**

Basic English Communicative Grammar and Vocabulary PART - II: Words formation - Prefixes and Suffixes, Contractions and Abbreviations. Word Pairs (Minimal Pairs) – Exercises, Tense and Types of tenses, The Sequence of Tenses (Rules in use of Tenses) and Exercises on it.

Module-5 **(03 hours of pedagogy)**

Communication Skills for Employment : Information Transfer: Oral Presentation and its Practice. Difference between Extempore/Public Speaking, Communication Guidelines. Mother Tongue Influence (MTI), Various Techniques for Neutralization of Mother Tongue Influence. Reading and Listening Comprehensions – Exercises.

Course outcome (Course Skill Set)

At the end of the course Communicative English (22ENG16) the student will be able to:

CO1	Understand and apply the Fundamentals of Communication Skills in their communication skills.
CO2	Identify the nuances of phonetics, intonation and enhance pronunciation skills.
CO3	To impart basic English grammar and essentials of language skills as per present requirement.
CO4	Understand and use all types of English vocabulary and language proficiency.
CO5	Adopt the Techniques of Information Transfer through presentation.

Assessment Structure

This course shall be assessed through Continuous Internal Assessment (CIA) only. There shall be no Semester-Wise End Examination (SWE), and the course shall carry no credits.

The CIA shall be conducted for 50 marks. A student shall be required to secure a minimum of 40% of the CIA marks, i.e., 20 out of 50 marks, to qualify in the course.

The internal assessment shall be conducted as follows:

First Test: After completion of approximately 35% of the prescribed syllabus, a test shall be conducted for 25 marks.
Second Test: After completion of approximately 85% of the prescribed syllabus, a second test shall be conducted for 25 marks.
Assignments: Two assignments, each carrying 25 marks, may be conducted as designed by the course teacher.

The total marks obtained in the two tests and two assignments, out of 100 marks, shall be scaled down to 50 marks for CIA.

The assessment records shall be maintained by the course teacher and submitted or uploaded whenever required by the Registrar (Evaluation) or the Examination Section.

Suggested Learning Resources:

Textbook:

1) **Communication Skills** by Sanjay Kumar & Pushp Lata, Oxford University Press India Pvt Ltd - 2019.
2) **A Textbook of English Language Communication Skills,** (ISBN-978-81-955465-2-7), Published by Infinite Learning Solutions, Bengaluru - 2022.

Reference Books:

1. **Technical Communication** by Gajendra Singh Chauhan and Et al, (ISBN-978-93-5350-050-4), Cengage learning India Pvt Limited [Latest Revised Edition] - 2019.
2. **English for Engineers** by N.P.Sudharshana and C.Savitha, Cambridge University Press – 2018.
3. **English Language Communication Skills – Lab Manual cum Workbook,** Cengage learning India Pvt Limited [Latest Revised Edition] – (ISBN-978-93-86668-45-5), 2019.
4. **A Course in Technical English – D Praveen Sam, KN Shoba,** Cambridge University Press – 2020.
5. **Practical English Usage** by Michael Swan, Oxford University Press – 2016.

Activity Based Learning (Suggested Activities in Class)/ Practical Based learning

- ✓ Contents related activities (Activity-based discussions)
- ✓ For active participation of students instruct the students to prepare Flowcharts and Handouts
- ✓ Organising Group wise discussions Connecting to placement activities
- ✓ Quizzes and Discussions, Seminars and assignments

ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ - ಕನ್ನಡ ಬಲ್ಲ ಮತ್ತು ಕನ್ನಡ ಮಾತೃಭಾಷೆಯ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ನಿಗದಿಪಡಿಸಿದ ಪಠ್ಯಕ್ರಮ

Course Title:	ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ		
Course Code:	2BPLN108A/1BKSK109	CIE Marks	50
Course Type (Theory/Practical /Integrated	Theory	SEE Marks	
		Total Marks	
Teaching Hours/Week (L:T:P: S)	1:0:0:0	Exam Hours	
Total Hours of Pedagogy	15 hours	Credits	PP

Course objectives : ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ ಪಠ್ಯ ಕಲಿಕೆಯ ಉದ್ದೇಶಗಳು:

The course (22KSK17/27) will enable the students,

1. ಪದವಿ ವಿದ್ಯಾರ್ಥಿಗಳಾಗಿರುವುದರಿಂದ ಕನ್ನಡ ಭಾಷೆ, ಸಾಹಿತ್ಯ ಮತ್ತು ಸಂಸ್ಕೃತಿಯ ಪರಿಚಯ ಮಾಡಿಕೊಡುವುದು.
2. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಪ್ರಧಾನ ಭಾಗವಾದ ಆಧುನಿಕಪೂರ್ವ ಮತ್ತು ಆಧುನಿಕ ಕಾವ್ಯಗಳನ್ನು ಪರಿಚಯಿಸಿವುದು.
3. ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಸಾಹಿತ್ಯ ಮತ್ತು ಸಂಸ್ಕೃತಿಯ ಬಗ್ಗೆ ಅರಿವು ಹಾಗೂ ಆಸಕ್ತಿಯನ್ನು ಮೂಡಿಸುವುದು.
4. ತಾಂತ್ರಿಕ ವ್ಯಕ್ತಿಗಳ ಪರಿಚಯವನ್ನು ಹಾಗೂ ಅವರುಗಳ ಸಾಧಿಸಿದ ವಿಷಯಗಳನ್ನು ಪರಿಚಯಿಸುವುದು.
5. ಸಾಂಸ್ಕೃತಿಕ, ಜನಪದ ಹಾಗೂ ಪ್ರವಾಸ ಕಥನಗಳ ಪರಿಚಯ ಮಾಡಿಕೊಡುವುದು.

ಬೋಧನೆ ಮತ್ತು ಕಲಿಕಾ ವ್ಯವಸ್ಥೆ (Teaching-Learning Process - General Instructions) :

These are sample Strategies, which teacher can use to accelerate the attainment of the course outcomes.

1. ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡವನ್ನು ಬೋಧಿಸಲು ತರಗತಿಯಲ್ಲಿ ಶಿಕ್ಷಕರು ಪ್ರಸ್ತುತ ಪುಸ್ತಕ ಆಧಾರಿಸಿ ಬ್ಲಾಕ್ ಬೋರ್ಡ್ ವಿಧಾನವನ್ನು ಅನುಸರಿಸುವುದು. ಪ್ರಮುಖ ಅಂಶಗಳ ಚಾರ್ಟ್ ಗಳನ್ನು ತಯಾರಿಸಲು ವಿದ್ಯಾರ್ಥಿಗಳನ್ನು ಪ್ರೇರೇಪಿಸುವುದು ಮತ್ತು ತರಗತಿಯಲ್ಲಿ ಅವುಗಳನ್ನು ಚರ್ಚಿಸಲು ಅವಕಾಶ ಮಾಡಿಕೊಡುವುದು.
2. ಇತ್ತೀಚಿನ ತಂತ್ರಜ್ಞಾನದ ಅನುಕೂಲಗಳನ್ನು ಬಳಸಿಕೊಳ್ಳುವುದು - ಅಂದರೆ ಕವಿ-ಕಾವ್ಯ ಪರಿಚಯದಲ್ಲಿ ಕವಿಗಳ ಚಿತ್ರಣ ಮತ್ತು ಲೇಖನಗಳು ಮತ್ತು ಕಥೆ ಕಾವ್ಯಗಳ ಮೂಲ ಅಂಶಗಳಿಗೆ ಸಂಬಂಧಪಟ್ಟ ಧ್ವನಿ ಚಿತ್ರಗಳು, ಸಂಭಾಷಣೆಗಳು, ಈಗಾಗಲೇ ಇತರ ವಿಮರ್ಶಕರು ಬರೆದಿರುವ ವಿಮರ್ಶಾತ್ಮಕ ವಿಷಯಗಳನ್ನು ಟಿಪಿಟಿ, ಡಿಜಿಟಲ್ ಮಾಧ್ಯಮಗಳ ಮುಖಾಂತರ ವಿಶ್ಲೇಷಿಸುವುದು.
3. ನವೀನ ಮಾದರಿಯ ಸಾಹಿತ್ಯ ಬೋಧನೆಗೆ ಸಂಬಂಧಪಟ್ಟ ವಿಧಾನಗಳನ್ನು ಶಿಕ್ಷಕರು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಅನುಕೂಲವಾಗುವ ರೀತಿಯಲ್ಲಿ ಅಳವಡಿಸಿಕೊಳ್ಳಬಹುದು.

ಘಟಕ -1 ಕನ್ನಡ ಸಂಸ್ಕೃತಿ ಮತ್ತು ಭಾಷೆ ಕುರಿತಾದ ಲೇಖನಗಳು (03 hours of pedagogy)

1. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ - ಹಂಪ ನಾಗರಾಜಯ್ಯ
2. ಕರ್ನಾಟಕದ ಏಕೀಕರಣ : ಒಂದು ಅಪೂರ್ವ ಚರಿತ್ರೆ - ಜಿ. ವೆಂಕಟಸುಬ್ಬಯ್ಯ
3. ಆಡಳಿತ ಭಾಷೆಯಾಗಿ ಕನ್ನಡ - ಡಾ. ಎಲ್. ತಿಮ್ಮೇಶ ಮತ್ತು ಪ್ರೊ. ವಿ. ಕೇಶವಮೂರ್ತಿ

ಘಟಕ - 2 ಆಧುನಿಕ ಪೂರ್ವದ ಕಾವ್ಯ ಭಾಗ (03 hours of pedagogy)

1. ವಚನಗಳು : ಬಸವಣ್ಣ, ಅಕ್ಕಮಹಾದೇವಿ, ಅಲ್ಲಮಪ್ರಭು, ಆಯ್ದಕ್ಕಿ ಮಾರಯ್ಯ, ಜೇಡರದಾಸಿಮಯ್ಯ, ಆಯ್ದಕ್ಕಿ ಲಕ್ಕಮ್ಮ.
2. ಕೀರ್ತನೆಗಳು : ಅದರಿಂದೇನು ಫಲ ಇದರಿಂದೇನು ಫಲ – ಪುರಂದರದಾಸರು
   ತಲ್ಲಣಿಸದಿರು ಕಂಡ್ಯ ತಾಳು ಮನವೇ - ಕನಕದಾಸರು
3. ತತ್ವಪದಗಳು : ಸಾವಿರ ಕೊಡಗಳ ಸುಟ್ಟು - ಶಿಶುನಾಳ ಶರೀಫ

ಘಟಕ -3 ಆಧುನಿಕ ಕಾವ್ಯಭಾಗ (03 hours of pedagogy)

1. ಡಿವಿಜಿ ರವರ ಮಂಕುತಿಮ್ಮನ ಕಗ್ಗದಿಂದ ಆಯ್ದ ಕೆಲವು ಭಾಗಗಳು
2. ಕುರುಡು ಕಾಂಚಾಣ : ದಾ.ರಾ. ಬೇಂದ್ರೆ
3. ಹೊಸಬಾಳಿನ ಗೀತೆ : ಕುವೆಂಪು

ಘಟಕ - 4 ತಾಂತ್ರಿಕ ವ್ಯಕ್ತಿಗಳ ಪರಿಚಯ (03 hours of pedagogy)

1. ಡಾ. ಸರ್. ಎಂ. ವಿಶ್ವೇಶ್ವರಯ್ಯ : ವ್ಯಕ್ತಿ ಮತ್ತು ಐತಿಹ್ಯ – ಎ. ಎನ್. ಮೂರ್ತಿರಾವ್
2. ಕರಕುಶಲ ಕಲೆಗಳು ಮತ್ತು ಪರಂಪರೆಯ ವಿಜ್ಞಾನ : ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ

ಘಟಕ - 5 ಸಾಂಸ್ಕೃತಿಕ, ಜನಪದ ಕಥೆ ಮತ್ತು ಪ್ರವಾಸ ಕಥನ (03 hours of pedagogy)

1. ಯುಗಾದಿ : ವಸುಧೇಂದ್ರ
2. ಮೆಗಾನೆ ಎಂಬ ಗಿರಿಜನ ಪರ್ವತ : ಹಿ.ಚಿ. ಬೋರಲಿಂಗಯ್ಯ

Course outcome (Course Skill Set)

ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ (22KSK17/27) ಪಠ್ಯ ಕಲಿಕೆಯ ನಂತರ ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ :

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

CO1	ಕನ್ನಡ ಭಾಷೆ, ಸಾಹಿತ್ಯ ಮತ್ತು ಕನ್ನಡದ ಸಂಸ್ಕೃತಿಯ ಕುರಿತು ಅರಿವು ಮೂಡಿರುತ್ತದೆ.
CO2	ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಆಧುನಿಕ ಪೂರ್ವ ಮತ್ತು ಆಧುನಿಕ ಕಾವ್ಯಗಳನ್ನು ಸಾಂಕೇತಿಕವಾಗಿ ಕಲಿತು ಹೆಚ್ಚಿನ ಓದಿಗೆ

	ಮತ್ತು ಜ್ಞಾನಕ್ಕೆ ಸ್ಫೂರ್ತಿ ಮೂಡುತ್ತದೆ.
CO3	ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಸಾಹಿತ್ಯ ಮತ್ತು ಸಂಸ್ಕೃತಿಯ ಬಗ್ಗೆ ಅರಿವು ಹಾಗೂ ಆಸಕ್ತಿಯನ್ನು ಹೆಚ್ಚಾಗುತ್ತದೆ.
CO4	ತಾಂತ್ರಿಕ ವ್ಯಕ್ತಿಗಳ ಪರಿಚಯ ಹಾಗೂ ಅವರುಗಳ ಸಾಧಿಸಿದ ವಿಷಯಗಳನ್ನು ತಿಳಿದುಕೊಂಡು ನಾಡಿನ ಇನ್ನಿತರ ವ್ಯಕ್ತಿಗಳ ಬಗ್ಗೆ ತಿಳಿದುಕೊಳ್ಳಲು ಕೌತುಕತೆ ಹೆಚ್ಚಾಗುತ್ತದೆ.
CO5	ಸಾಂಸ್ಕೃತಿಕ, ಜನಪದ ಹಾಗೂ ಪ್ರವಾಸ ಕಥನಗಳ ಪರಿಚಯ ಮಾಡಿಕೊಡುವುದು.

Assessment Structure

This course shall be assessed through Continuous Internal Assessment (CIA) only. There shall be no Semester-Wise End Examination (SWE), and the course shall carry no credits.

The CIA shall be conducted for 50 marks. A student shall be required to secure a minimum of 40% of the CIA marks, i.e., 20 out of 50 marks, to qualify in the course.

The internal assessment shall be conducted as follows:

First Test: After completion of approximately 35% of the prescribed syllabus, a test shall be conducted for 25 marks.
Second Test: After completion of approximately 85% of the prescribed syllabus, a second test shall be conducted for 25 marks.
Assignments: Two assignments, each carrying 25 marks, may be conducted as designed by the course teacher.

The total marks obtained in the two tests and two assignments, out of 100 marks, shall be scaled down to 50 marks for CIA.

The assessment records shall be maintained by the course teacher and submitted or uploaded whenever required by the Registrar (Evaluation) or the Examination Section.

University Prescribed Textbook :

ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ

ಡಾ. ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ ಮತ್ತು ಡಾ. ಎಲ್. ತಿಮ್ಮೇಶ,

ಪ್ರಕಟಣೆ : ಪ್ರಸಾರಾಂಗ,

ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಳಗಾವಿ.

ವಿಶೇಷ ಸೂಚನೆ : 1. ಮೇಲಿನ ಪಠ್ಯಕ್ರಮಕ್ಕೆ ಸೀಮಿತವಾಗಿ ಅಂತಿಮ ಪರೀಕ್ಷೆಯ ಪ್ರಶ್ನೆಪತ್ರಿಕೆ ಇರುತ್ತದೆ.

2. ಮೇಲಿನ ಪಠ್ಯಕ್ರಮವನ್ನು ಹೊರತುಪಡಿಸಿದ ಸಾಂಸ್ಕೃತಿಕ ಕನ್ನಡ ಪಠ್ಯಪುಸ್ತಕದಲ್ಲಿನ ಉಳಿದ ಪದ್ಯ & ಗದ್ಯ ಭಾಗ ಹಾಗೂ ಇತರ ಲೇಖನಗಳನ್ನು ಹೆಚ್ಚುವರಿ ಪೂರಕ ಓದಿಗಾಗಿ ಬಳಸಿಕೊಳ್ಳಬಹುದು. ಅಂತಿಮ ಪರೀಕ್ಷೆಯಲ್ಲಿ ಈ ಪಾಠಗಳಿಂದ ಪ್ರಶ್ನೆಗಳನ್ನು ಕೇಳಲಾಗುವುದಿಲ್ಲ.

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Activity Based Learning (Suggested Activities in Class)/ Practical Based learning

- ✓ Contents related activities (Activity-based discussions)
- ✓ For active participation of students instruct the students to prepare Flowcharts and Handouts
- ✓ Organising Group wise discussions Connecting to placement activities
- ✓ Quizzes and Discussions, Seminars and assignments.

ಬಳಕೆ ಕನ್ನಡ - baLake Kannada (Kannada for Usage)

ಕನ್ನಡ ಕಲಿಕೆಗಾಗಿ ನಿಗದಿಪಡಿಸಿದ ಪಠ್ಯಪುಸ್ತಕ - (Prescribed Textbook to Learn Kannada)

Course Title:	ಬಳಕೆ ಕನ್ನಡ		
Course Code:	2BPLN108B/1BKBK109	CIE Marks	50
Course Type (Theory/Practical /Integrated	Theory	SEE Marks	
		Total Marks	
Teaching Hours/Week (L:T:P: S)	1:0:0:0	Exam Hours	
Total Hours of Pedagogy	15 hours	Credits	

Course objectives : ಬಳಕೆ ಕನ್ನಡ ಪಠ್ಯ ಕಲಿಕೆಯ ಉದ್ದೇಶಗಳು:

The course (BKBK109) will enable the students,

1. To Create the awareness regarding the necessity of learning local language for comfortable and healthy life.
2. To enable learners to Listen and understand the Kannada language properly.
3. To speak, read and write Kannada language as per requirement.
4. To train the learners for correct and polite conservation.
5. To know about Karnataka state and its language, literature and General information about this state.

ಬೋಧನೆ ಮತ್ತು ಕಲಿಕಾ ವ್ಯವಸ್ಥೆ (Teaching-Learning Process - General Instructions) :

These are sample Strategies, which teacher can use to accelerate the attainment of the various course outcomes.

1. **ಬಳಕೆ ಕನ್ನಡವನ್ನು ತರಗತಿಯಲ್ಲಿ ಶಿಕ್ಷಕರು ಬೋಧಿಸಲು ವಿಟಿಯು ಸೂಚಿಸಿರುವ ಪಠ್ಯಪುಸ್ತಕವನ್ನು ಉಪಯೋಗಿಸಬೇಕು.**
2. **ಪ್ರಮುಖ ಅಂಶಗಳ ಚಾರ್ಟ್ ಗಳನ್ನು ತಯಾರಿಸಲು ವಿದ್ಯಾರ್ಥಿಗಳನ್ನು ಉತ್ತೇಜಿಸುವುದು ಮತ್ತು ತರಗತಿಯಲ್ಲಿ ಅವುಗಳನ್ನು ಚರ್ಚಿಸಲು ಅವಕಾಶ ಮಾಡಿಕೊಡುವುದು.**
3. **ಪ್ರತಿ ವಿದ್ಯಾರ್ಥಿ ಪುಸ್ತಕವನ್ನು ತರಗತಿಯಲ್ಲಿ ಬಳಸುವಂತೆ ನೋಡಿಕೊಳ್ಳುವುದು ಮತ್ತು ಪ್ರತಿ ಪಾಠ ಮತ್ತು ಪ್ರವಚನಗಳ ಮೂಲ ಅಂಶಗಳಿಗೆ ಸಂಬಂಧಪಟ್ಟಂತೆ ಪೂರಕ ಚಟುವಟಿಕೆಗಳಿಗೆ ತೊಡಗಿಸತಕ್ಕದ್ದು.**
4. **ಡಿಜಿಟಲ್ ತಂತ್ರಜ್ಞಾನದ ಮುಖಾಂತರ ಇತ್ತೀಚೆಗೆ ಡಿಜಿಟಲೀಕರಣ ಗೊಂಡಿರುವ ಭಾಷೆ ಕಲಿಕೆಯ ವಿಧಾನಗಳನ್ನು ಪಿಪಿಟಿ ಮತ್ತು ದೃಶ್ಯ ಮಾಧ್ಯಮದ ಮುಖಾಂತರ ಚರ್ಚಿಸಲು ಕ್ರಮಕ್ಕೆಗೊಳ್ಳುವುದು. ಇದರಿಂದ ವಿದ್ಯಾರ್ಥಿಗಳನ್ನು ತರಗತಿಯಲ್ಲಿ ಹೆಚ್ಚು ಏಕಾಗ್ರತೆಯಿಂದ ಪಾಠ ಕೇಳಲು ಮತ್ತು ಅಧ್ಯಯನದಲ್ಲಿ ತೊಡಗಲು ಅನುಕೂಲವಾಗುತ್ತದೆ.**
5. **ಭಾಷಾಕಲಿಕೆಯ ಪ್ರಯೋಗಾಲಯದ ಮುಖಾಂತರ ಬಹುಬೇಗ ಕನ್ನಡ ಭಾಷೆಯನ್ನು ಕಲಿಯಲು ಅನುಕೂಲವಾಗುವಂತೆ ಕಾರ್ಯಚಟುವಟಿಕೆಗಳನ್ನು ಮತ್ತು ಕ್ರಿಯಾ ಯೋಜನೆಗಳನ್ನು ರೂಪಿಸುವುದು.**

Module - 1

(03 hours of pedagogy)

1. Introduction, Necessity of learning a local language. Methods to learn the Kannada language.
2. Easy learning of a Kannada Language: A few tips. Hints for correct and polite conservation, Listening and Speaking Activities, Key to Transcription
3. ವೈಯಕ್ತಿಕ, ಸ್ವಾಮ್ಯಸೂಚಕ/ಸಂಬಂಧಿತ ಸಾರ್ವನಾಮಗಳು ಮತ್ತು ಪ್ರಶ್ನಾರ್ಥಕ ಪದಗಳು - Personal Pronouns, Possessive Forms, Interrogative words

Module - 2 (03 hours of pedagogy)

1. ನಾಮಪದಗಳ ಸಂಬಂಧಾರ್ಥಕ ರೂಪಗಳು, ಸಂದೇಹಾಸ್ಪದ ಪ್ರಶ್ನೆಗಳು ಮತ್ತು ಸಂಬಂಧವಾಚಕ ನಾಮಪದಗಳು - **Possessive forms of nouns, dubitive question and Relative nouns**
2. ಗುಣ, ಪರಿಮಾಣ ಮತ್ತು ವರ್ಣಬಣ್ಣ ವಿಶೇಷಣಗಳು, ಸಂಖ್ಯಾವಾಚಕಗಳು **Qualitative, Quantitative and Colour Adjectives, Numerals**
3. ಕಾರಕ ರೂಪಗಳು ಮತ್ತು ವಿಭಕ್ತಿ ಪ್ರತ್ಯಯಗಳು –ಸಪ್ತಮಿ ವಿಭಕ್ತಿ ಪ್ರತ್ಯಯ – (ಆ, ಅದು, ಅವು, ಅಲ್ಲಿ) –**Predictive Forms, Locative Case**

Module - 3 (03 hours of pedagogy)

1. ಚತುರ್ಥಿ ವಿಭಕ್ತಿ ಪ್ರತ್ಯಯದ ಬಳಕೆ ಮತ್ತು ಸಂಖ್ಯಾವಾಚಕಗಳು - **Dative Cases, and Numerals**
2. ಸಂಖ್ಯಾಗುಣವಾಚಕಗಳು ಮತ್ತು ಬಹುವಚನ ನಾಮರೂಪಗಳು -**Ordinal numerals and Plural markers**
3. ನ್ಯೂನ/ನಿಷೇಧಾರ್ಥಕ ಕ್ರಿಯಾಪದಗಳು & ವರ್ಣ ಗುಣವಾಚಕಗಳು –**Defective/Negative Verbs & Colour Adjectives**

Module- 4 (03 hours of pedagogy)

1. ಅಪ್ಪಣೆ / ಒಪ್ಪಿಗೆ, ನಿರ್ದೇಶನ, ಪ್ರೋತ್ಸಾಹ ಮತು ಒತ್ತಾಯ ಆರ್ಥರೂಪ ಪದಗಳು ಮತ್ತು ವಾಕ್ಯಗಳು **Permission, Commands, encouraging and Urging words (Imperative words and sentences)**
2. ಸಾಮಾನ್ಯ ಸಂಭಾಷಣೆಗಳಲ್ಲಿ ದ್ವಿತೀಯ ವಿಭಕ್ತಿ ಪ್ರತ್ಯಯಗಳು ಮತ್ತು ಸಂಭವನೀಯ ಪ್ರಕಾರಗಳು **Accusative Cases and Potential Forms used in General Communication**
3. "ಇರು ಮತ್ತು ಇರಲ್ಲ" ಸಹಾಯಕ ಕ್ರಿಯಾಪದಗಳು, ಸಂಭಾವ್ಯಸೂಚಕ ಮತ್ತು ನಿಷೇಧಾರ್ಥಕ ಕ್ರಿಯಾ ಪದಗಳು - Helping Verbs "iru and iralla", Corresponding Future and Negation Verbs
4. ಹೋಲಿಕೆ (ತರತಮ) , ಸಂಬಂಧ ಸೂಚಕ, ವಸ್ತು ಸೂಚಕ ಪ್ರತ್ಯಯಗಳು ಮತ್ತು ನಿಷೇಧಾರ್ಥಕ ಪದಗಳ ಬಳಕೆ- Comparitive, Relationship, Identification and Negation Words

Module - 5 (03 hours of pedagogy)

1. ಕಾಲ ಮತ್ತು ಸಮಯದ ಹಾಗೂ ಕ್ರಿಯಾಪದಗಳ ವಿವಿಧ ಪ್ರಕಾರಗಳು -Different types of Tense, Time and Verbs
2. ದ್, -ತ್, - ತು, - ಇತು, - ಆಗಿ, - ಅಲ್ಲ, - ಗ್, -ಕ್, ಇದೆ, ಕ್ರಿಯಾ ಪ್ರತ್ಯಯಗಳೊಂದಿಗೆ ಭೂತ, ಭವಿಷ್ಯತ್ ಮತ್ತು ವರ್ತಮಾನ ಕಾಲ ವಾಕ್ಯ ರಚನೆ - Formation of Past, Future and Present Tense Sentences with Verb Forms
3. **Kannada Vocabulary List :ಸಂಭಾಷಣೆಯಲ್ಲಿ ದಿನೋಪಯೋಗಿ ಕನ್ನಡ ಪದಗಳು -Kannada Words in Conversation**

Course outcome (Course Skill Set)

ಬಳಕೆ ಕನ್ನಡ ಪಠ್ಯ ಕಲಿಕೆಯಿಂದ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಆಗುವ ಅನುಕೂಲಗಳು ಮತ್ತು ಫಲಿತಾಂಶಗಳು:

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

CO1	To understand the necessity of learning of local language for comfortable life.
CO2	To speak, read and write Kannada language as per requirement.
CO3	To communicate (converse) in Kannada language in their daily life with kannada speakers.
CO4	To Listen and understand the Kannada language properly.
CO5	To speak in polite conservation.

Assessment Structure

This course shall be assessed through Continuous Internal Assessment (CIA) only. There shall be no Semester-Wise End Examination (SWE), and the course shall carry no credits.

The CIA shall be conducted for 50 marks. A student shall be required to secure a minimum of 40% of the CIA marks, i.e., 20 out of 50 marks, to qualify in the course.

The internal assessment shall be conducted as follows:

First Test: After completion of approximately 35% of the prescribed syllabus, a test shall be conducted for 25 marks.
Second Test: After completion of approximately 85% of the prescribed syllabus, a second test shall be conducted for 25 marks.
Assignments: Two assignments, each carrying 25 marks, may be conducted as designed by the course teacher.

The total marks obtained in the two tests and two assignments, out of 100 marks, shall be scaled down to 50 marks for CIA.

The assessment records shall be maintained by the course teacher and submitted or uploaded whenever required by the Registrar (Evaluation) or the Examination Section.

University Prescribed Textbook :

ಬಳಕೆ ಕನ್ನಡ

ಡಾ. ಎಲ್. ತಿಮ್ಮೇಶ

ಪ್ರಕಟಣೆ : ಪ್ರಸಾರಾಂಗ,

ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಳಗಾವಿ.

ಸೂಚನೆ :

ವಿಶೇಷ ಸೂಚನೆ : 1. ಮೇಲಿನ ಪಠ್ಯಕ್ರಮಕ್ಕೆ ಸೀಮಿತವಾಗಿ ಅಂತಿಮ ಪರೀಕ್ಷೆಯ ಪ್ರಶ್ನೆಪತ್ರಿಕೆ ಇರುತ್ತದೆ.

2. ಮೇಲಿನ ಪಠ್ಯಕ್ರಮವನ್ನು ಹೊರತುಪಡಿಸಿದ ಬಳಕೆ ಕನ್ನಡ ಪಠ್ಯಪುಸ್ತಕದಲ್ಲಿನ ಉಳಿದ ಭಾಗಳನ್ನು ಹೆಚ್ಚುವರಿ ಪೂರಕ ಓದಿಗಾಗಿ ಬಳಸಿಕೊಳ್ಳಬಹುದು. ಅಂತಿಮ ಪರೀಕ್ಷೆಯಲ್ಲಿ ಈ ಪಾಠಗಳಿಂದ ಪ್ರಶ್ನೆಗಳನ್ನು ಕೇಳಲಾಗುವುದಿಲ್ಲ.

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Activity Based Learning (Suggested Activities in Class)/ Practical Based learning

- ✓ Contents related activities (Activity-based discussions)
- ✓ For active participation of students instruct the students to prepare Flowcharts and Handouts
- ✓ Organising Group wise discussions Connecting to placement activities
- ✓ Quizzes and Discussions.
- ✓ Seminars and assignments.

I Semester

	BASIC MATHEMATICS			
	Course Code	2BPLN109	Scheme	2026
	Type of Course	**NCMC**	Semester	I
	Teaching Hours/Week (L:T:P)	2:0:0	CIE Marks	100
	Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	28:00:00:00:00	SEE Marks	-
	Credits	-	Total Marks	100
	Examination type (SEE)	-	Exam Hours	

Course Objective: (Course Skill Set)

- To develop proficiency in interpreting data, solving equations, and using functions in real-world planning contexts.
- To understand mathematical principles relevant to planning, spatial analysis, and decision-making.
- To apply mathematical tools in quantitative analysis, urban modelling, and infrastructure planning.
- To foster logical reasoning and structured thinking essential for urban systems modelling and policy evaluation.

Teaching-Learning Process (General Instructions)

These are sample Strategies, which teachers can use to accelerate the attainment of the various course outcomes.

- Innovative lecture methodologies to be adapted to improve the teaching and learning process
- Short videos for better understanding of ancient cities in history
- Encourage collaborative (Group Learning) learning in the class
- Ask at least three HOT (Higher order Thinking) questions in the class, which promotes critical thinking

COURSE CONTENT

Functions & Sets :Set theory and its applications in demographic and land-use classification; Functions and graphs: linear, polynomial, exponential, and logarithmic – relevance in population projections and growth models.

Algebra: Quadratic Equations; Linear Inequalities; Permutations and Combinations; Sequence and Series.

Geometry and Trigonometry: Coordinate geometry: use in site layout, land parceling, and spatial planning; Straight lines, slopes, and distances; application in transport networks; Trigonometric functions and identities.

Calculus : Limits and continuity - foundational concepts; Derivatives and rates of change: use in population dynamics, traffic flow, and urban expansion rates; Basics of integration: cumulative resource use, area under curves.

Number of Hours: 28 Hours

Course outcome (Course Skill Set)

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

CO1: Apply mathematical methods to solve problems in urban, regional, and environmental planning.
CO2: Analyze and interpret planning data using algebraic, geometric, and statistical techniques.
CO3: Develop models for growth projections, land suitability, and infrastructure efficiency.
CO4: Use quantitative reasoning in planning proposals and development control strategies.
CO5: Enhance decision-making with a strong foundation in applied mathematics.

Suggested Learning Resources:

References:

1. Mathematics Textbook for Class XI, NCERT, New Delhi.
2. Mathematics Part I - Textbook for Class XII, NCERT, New Delhi.
3. Mathematics Part II - Textbook for Class XII, NCERT, New Delhi.
4. Mathematics Exemplar Problem for Class XI, NCERT, New Delhi.
5. Mathematics Exemplar Problem for Class XII, NCERT, New Delhi.
6. Mathematics Lab Manual Class XI, NCERT, New Delhi.
7. Mathematics Lab Manual Class XII, NCERT, New Delhi.

Assessment Structure:

The assessment in this course is Continuous Internal Evaluation (CIE) and there is no Semester End Examination (SEE),

- To qualify and become eligible,in the **CIE**, a student must score at least **40%** (40 marks out of 100) **of maximum marks for CIE**.

Continuous Internal Evaluation (CIE):

- Methods of CIE suggested: MCQ, Written Quizzes, Open book test, Closed book test, Seminar or micro project, etc.,

The class teacher has to decide the topic for closed book test, open book test, Written Quiz and Seminar. In the beginning only the teacher has to announce the methods of CIE for the subject.

II SEMESTER

II Semester

	PLANNING STUDIO-II			
	Course Code	2BPLN201	Scheme	2026
	Type of Course	**IPCC**	Semester	II
	Teaching Hours/Week (L:T:P)	2:0:8	CIE Marks	50
	Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	28:00:112:00:40	SEE Marks	50
	Credits	**6**	Total Marks	100
	Examination type (SEE)	Viva Voce	Exam Hours	-

Course Objectives:

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

This studio intends to develop vocabulary in planning and develop an ability to observe, record and present data in meaningful ways with the purpose of understanding planning issues.

To explain the basic terminologies in planning. To apply data collection methods in field surveys. To identify ways in which we observe, record and present data in meaningful ways. To demonstrate familiarity with the functioning of a neighbourhood and a village through processes of experiential learning.

Teaching-Learning Process (General Instructions)

These are sample Strategies, which teachers can use to accelerate the attainment of the various course outcomes.

- Planning requires hands-on experience to utilize the knowledge gained out of theoretical subjects. This is done through exposure to site visits and site studies
- The faculty can make the students think based on small activity based exercises and projects, manual sheets are to be prepared.

Course Content

Village study

- Village study would involve an analysis of a rural settlement by comprehending social, economic, physical and political aspects. This exercise would also focus on the understanding of the history of a village and its people, basis of spatial organisation of a village and its transformations over the years.
- This would further include understanding of land between the abadi area and the revenue boundary of a village. Lastly, a study of government schemes for the entire village would be undertaken. Students would be expected to develop sensitivity to development issues in a rural settlement.

Neighbourhood Study

- This component is divided into two parts. In the first part students undertake a study of different land uses other than the residential land use. Through land use case studies, students are expected to develop understanding of basic principles of land use planning such as categorization, hierarchy, permissibility, compatibility, etc. and supporting infrastructure required for various land uses.
- The Second part of this component focuses on residential land use. Building on the understanding of residential neighbourhood developed in the previous semester, students would also develop an understanding of typologies of residential development with respect to built form, evolution, ownership, etc. and requirements of facilities and infrastructure in residential areas.
- Students are expected to apply data collection methods learnt in Planning Techniques class including primary surveys to understand different activities, socio-economic conditions, and infrastructure availability.

Course Outcomes: Upon the completion of this course, the students would be able:
CO1: Analyse the social, economic, physical and political characteristics of rural settlements.
CO2: Examine the historical evolution and spatial organisation of villages.
CO3: Assess rural land, development issues and relevant government schemes.
CO4: Analyse land-use patterns, compatibility, hierarchy and supporting infrastructure in neighbourhoods.
CO5: Evaluate residential typologies, socio-economic conditions, facilities and infrastructure through primary surveys.

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

Reference books / Manuals:

1. Berke, P. and Goodschalk, D.A., (2006) Urban Land Use Planning, University of Illinois Press, Champaign, Illinois.
2. Jodhka, S.S. (ed.) (2012) Village Society, Orient Blackswan, Hyderabad.
3. Talen, E. (2012) City Rules: How regulations affect urban form, Island Press, Washington.
4. Stevens, N.J., Salmon, M.P., Walker, H.G., and Stanton, A.N. (2008) Human Factors in Land Use Planning and Design, CRC Press, New York.
5. Sheth, A., and Panchal, N. and Patel, S.B. (2007) Urban Layouts, Densities and the Quality of Urban Life, Economic and Political Weekly Vol. 42, No. 26, pp. 2725-2736.
6. Vidyarthi, S. (2015) One Idea Many Plans: An American City Design Concept in Independent India, Routledge, New York.

Web links and Video Lectures (e-Resources):

- **http://mohua.gov.in/link/urdpfi-guidelines.php**
- **https://www.youtube.com/watch?v=mrcCagx8M1w**
- **https://www.youtube.com/watch?v=nSOBTRKUmQQ**
- **https://rural.nic.in/departments/departments-of-mord/department-rural-development**
- **https://rural.nic.in/sites/default/files/Guidelines_Evaluation_Impact_Assessment_Research_Studies_Economic_Monitoring_Wing.pdf**

Suggested Learning Activities:

- Through site visits and site studies from both physical study as well as literature study, the studio should focus on the development of various conceptual models and ideas of the students into Plans
- Physical site visits and case studies to enhance the knowledge of the students, field studies to be based on the Village Planning and Urban Neighbourhood Planning
- Literature study ppts and class discussions

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 **40% of maximum marks for CIE**.

- To pass the **SEE**, a student must score at least **35 % 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 **40% out of 100 marks**.

Continuous Internal Evaluation (CIE):

Continuous Internal Evaluation (CIE): The CIE marks awarded in case of Studio shall be based on the weekly evaluation of progress of the studio works after the conduction of every Presentation

Semester End Examination (SEE):

Planning Studio SEE will be conducted by the University as per scheduled time table, in a batch wise with External examiner and Internal Examiner reviewing the works of the students through Viva voice.

II Semester

	FUNDAMENTALS OF PLANNING			
	Course Code	2BPLN202	Scheme	2026
	Type of Course	**PCC**	Semester	II
	Teaching Hours/Week (L:T:P)	3:0:0	CIE Marks	50
	Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42:00:00:00:48	SEE Marks	50
	Credits	**3**	Total Marks	100
	Examination type (SEE)	Theory	Exam Hours	3
	Course Objective: (Course Skill Set) • To understand the basic concepts and rationales of planning, plan making processes, planning organisations, and theories of urbanization.			
	Module 1			
	Basics in Planning : Definition and characteristics of rural and urban settlements as per census; Classification of towns, city, metropolis, megalopolis, interaction and interdependence between city-region; Benefits of planning; Goals, objectives and components of planning; Planning as a discipline and multidisciplinary nature of planning; Different roles of planners; Components of sustainable urban and regional development. Number of Hours: 8 Hours			
	Module 2			
	Dimensions of Planning: Orthodoxies of planning; Components of sustainable urban and regional development; Reasoning and its forms in planning; Planning knowledge and its various forms; Arguments for and against planning; Economic and societal aspects as bases of town and country planning; Urbanization process: definition, character, function, role of social, economic and demographic aspects of urbanization, major components of a settlement, major urban problems and their solutions. Number of Hours: 10 Hours			
	Module 3			
	Participation, Governance, and Planning Models : Public Participation in Planning: History, significance, methods, and challenges; Advocacy and Equity Planning: Concepts, historical background, and implications for urban planning; Collaborative and Communicative Planning: Contributions of Patsy Healey and Judith Innes; Political Economy in Planning: Role of governance and the state in urban development; Trust, Power, and Conflict in Planning: Deliberative policy analysis and planning as persuasive storytelling. Number of Hours:9 Hours			
	Module-4			
	Plan Preparation Process : Types of Plans: definition, types and scope of development plans, regional plan, master plan, zonal plan, town planning scheme, layout plan, structure plan, district plan, action area plan, subject plan; Hierarchy of plans and its significance; Planning Process: need and importance, function and type of planning, role of environment, society, economy, political, administrative and legal system in planning process; Number of Hours: 9 Hours			

	Module-5
	Theories of Urbanization and Role of Planning Organizations : Theories of urbanization including Concentric Zone Theory, Sector Theory, Multiple Nuclei Theory and other latest theories; Land Use and Land Value Theory of William Alonso; Meanings and forms of globalization; Characteristics of a global city; Principles for planning for a global city. Number of Hours: 6 Hours
	Course outcome (Course Skill Set) At the end of the course the student will be able to : **CO1:** Explain the fundamentals, scope and multidisciplinary nature of planning and sustainable development. **CO2:** Analyse the social, economic, demographic and urbanisation dimensions influencing planning. **CO3:** Explain participatory, collaborative, advocacy and governance approaches to planning. **CO4:** Apply planning processes and hierarchy of plans in the preparation of development plans. **CO5:** Analyse theories of urbanisation, land use, land value and global city planning.

Suggested Learning Resources:

References:

1. Alexander, E.R. (1987) Planning as Development Control: Is That All Urban Planning Is For? Town Planning Review, Vol. 58, No. 4, pp. 453-467.
2. Baer, W.C. (2007) General Plan Evaluation Criteria: An Approach to Making Better Plans, Journal of the American Planning Association, Vol. 63, Issue 3, pp. 329-344.
3. Branch, M.C. (2018) Comprehensive City Planning: Introduction and Explanation, Routledge. First Edition published in 1985
4. Kasarda, J.D. and Crenshaw, E.M. (1991) Third World Urbanization: Dimensions, Theories, and Determinants, Annual Review of Sociology, Vol. 17, pp. 467-501.
5. King, A. (1976) Colonial Urban Development: Culture, Social Power, and Environment, Routledge and Kegan Paul, New York.
6. Klosterman, R.E. (1985) Arguments for and Against Planning, Town Planning Review, Vol. 56, No. 1, pp. 5 20.
7. Patel, S.B. (1997) Urban Planning by Objectives, Economic and Political Weekly, Vol. 32, No. 16, pp. 822 826.
8. Roberts, T. (2002) The Seven Lamps of Planning [with Comments] by Cliff Hague, Glyn Roberts and Lesley Punter, Town Planning Review, Vol. 73, No. 1, pp. 1-15.
9. Vidyarthi, S. (2018) Spatial Plans in Post-liberalization India: Who's making the plans for fast-growing Urban Regions? Journal of Urban Affairs, DOI: 10.1080/07352166.2018.1527658

Web links and Video Lectures (e-Resources):

- https://www.my-mooc.com/en/categorie/000/

Suggested Learning Activities:

- Module based activity related to topics
- Presentation preparation related to the given topics
- Debate on various topics from the module or current affairs

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 **40%** (40 marks out of 100) **of maximum marks for CIE**.
- To pass the **SEE**, a student must score at least **35%** (35 marks out of 100 marks) **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 **40 out of 100 marks**.

Continuous Internal Evaluation (CIE):

- Methods of CIE suggested: MCQ, Written Quizzes, Open book test, Closed book test, Seminar or micro project, etc.,

The class teacher has to decide the topic for closed book test, open book test, Written Quiz and Seminar. In the beginning only the teacher has to announce the methods of CIE for the subject.

Semester End Examination (SEE):

- Theory SEE will be conducted as per VTU rules and scheduled time table, with common question papers for the subject.
  - The question paper will have ten questions. Each question is set for 20 marks.
  - There will be 2 questions from each module. Each of the two questions under a module (with a maximum of 3 sub questions), should have a mix of topics under that module.
  - The students have to answer 5 full questions, selecting one full question from each module

Marks scored by the students out of 100 marks will be proportionally scaled down to 50 marks

II Semester

	SITE SURVEYING AND LAND DEVELOPMENT			
	Course Code	2BPLN203	Scheme	2026
	Type of Course	**PCC**	Semester	II
	Teaching Hours/Week (L:T:P)	2:0:2	CIE Marks	50
	Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	28:00:28:00:34	SEE Marks	50
	Credits	**3**	Total Marks	100
	Examination type (SEE)	Theory	Exam Hours	-
	Course Objective: (Course Skill Set) • To develop basic understanding about land development with a particular focus on surveys, geology and hydrology.			
	Teaching-Learning Process (General Instructions)			
	These are sample Strategies, which teachers can use to accelerate the attainment of the various course outcomes. • Innovative lecture methodologies to be adapted to improve the teaching and learning process • Short videos for better understanding of ancient cities in history • Encourage collaborative (Group Learning) learning in the class • Practical field procedures for topographic surveys using these instruments will be emphasized.			
	Module 1			

	Fundamentals of Surveying: This unit introduces the foundational principles of surveying, encompassing various types and classifications of surveys and maps. Students will learn to distinguish between plans and maps, understand accuracy versus precision, and identify sources and types of errors. The unit also covers key land surveying techniques, including chain surveying and levelling, and delves into modern instruments such as Electronic Distance Measurement (EDM) tools and Total Stations. Number of Hours: 12 Hours
	Module 2
	Topographical Surveying Concepts and GPS Techniques: Focusing on topographical surveying, this unit explores procedures for creating topographical maps and their applications. Topics include relief representation, contour characteristics, and methods for locating and interpolating contours. Students will also examine specific surveys like those for dam construction. The unit introduces the fundamentals of the Global Positioning System (GPS), including the use of various satellites, differential GPS, and practical applications using handheld GPS receivers. Number of Hours: 12 Hours
	Module 3
	Geology, and Groundwater: This unit delves into geological structures, landforms, weathering processes, and mass wasting phenomena. It assesses terrain suitability for various developments, considering factors like earthquakes, seismic zoning, and disaster prevention. Concept and role in urban and regional planning in different types of terrains; The hydrologic cycle is examined, focusing on groundwater properties, surface water dynamics, artificial recharge methods, and their implications for site selection and development. Number of Hours: 12 Hours
	Module-4
	Fundamentals of Geomorphology: Geomorphic classification and Evolution of landforms; Geomorphic cycle and their interpretation; Evolution of typical geomorphic features of India; Description and classification of folds, faults, joints, unconformities, fault planes; Landform types; Landslides, instability of hill slopes and its prevention. Number of Hours: 10 Hours
	Module-5
	Land Development Planning, Design, and Legal Aspects: Land use planning, zoning laws, and sustainable development practices. Infrastructure design topics include planning for utilities, transportation networks, and drainage systems. Environmental impact assessments will be conducted to evaluate potential effects of development projects. Legal aspects such as property law, land ownership, regulatory compliance, and ethical considerations in surveying and land development. Number of Hours:10 Hours
	Course outcome (Course Skill Set) At the end of the course the student will be able to : ● To develop the skills for preparing a base map at different scales and representation of relevant planning information on it. ● To know data requirements for planning and to demonstrate skills for undertaking surveys. ● To produce data through tables, charts and reports.

Suggested Learning Resources:

References:

1. Berke, P.R. and Goodschalk, D.R., Kaiser, E.J. and Rodriguez, D.A. (2006) Urban Land Use Planning, University of Illinois Press, Champaign, Illinois. Fifth Edition.
2. Dandekar, H.C. (ed.) (2019) The Planner's Use of Information, Routledge, New York. Third Edition.
3. Guthrie, G. (2010) Basic Research Methods: An Entry to Social Science Research, Sage, Los Angeles.
4. Krueckeberg, D.A. and Silvers, A.L. (1974) Urban Planning Analysis: Methods and Models, Wiley, London. 5. Monmonier, M. (1996) How to Lie with Maps, University of Chicago Press, Chicago. 6. Wang, X., Rainer, A. and Hofe, V. (2007) Research Methods in Urban and Regional Planning, Springer, Berlin

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 **40%** (40 marks out of 100) **of maximum marks for CIE**.
- To pass the **SEE**, a student must score at least **35%** (35 marks out of 100 marks) **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 **40 out of 100 marks**.

Continuous Internal Evaluation (CIE):

- Methods of CIE suggested: MCQ, Written Quizzes, Open book test, Closed book test, Seminar or micro project, etc.,

The class teacher has to decide the topic for closed book test, open book test, Written Quiz and Seminar. In the beginning only the teacher has to announce the methods of CIE for the subject.

Semester End Examination (SEE):

- Theory SEE will be conducted as per VTU rules and scheduled time table, with common question papers for the subject.
  - The question paper will have ten questions. Each question is set for 20 marks.
  - There will be 2 questions from each module. Each of the two questions under a module (with a maximum of 3 sub questions), should have a mix of topics under that module.
  - The students have to answer 5 full questions, selecting one full question from each module

Marks scored by the students out of 100 marks will be proportionally scaled down to 50 marks

II Semester

	STATISTICAL METHODS			
	Course Code	2BPLN204	Scheme	2026
	Type of Course	**PSC**	Semester	II
	Teaching Hours/Week (L:T:P)	3:0:0	CIE Marks	50
	Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	42:00:00:00:48	SEE Marks	50
	Credits	**3**	Total Marks	100
	Examination type (SEE)	Theory	Exam Hours	3
	Course Objective: (Course Skill Set) ● To understand types and forms of statistical means to derive meaningful findings from an urban & regional perspectives.			
	Module 1			
	Basic of Statistics and Sampling: Introduction to statistics – meaning, importance, scope and limitations; Collection of data – objectives, scope, sources; Methods of classification of data – functions, rules basis; Methods of tabulation of data – meaning, importance, prerequisites, types; Sampling – concepts, principles, types, designing sample surveys, sampling errors; Sampling Methods. Number of Hours: 8 Hours			
	Module 2			

Measures of central tendency :- meaning and importance, arithmetic mean, median, mode; Measures of dispersion – meaning and importance, range, quartile deviations, mean deviation, standard-deviation, Lorenz curve; Importance and applications of measures of central tendency and measures of dispersion.

Number of Hours: 8 Hours

Module 3

Correlation and Regression Analysis : Correlation analysis – meaning, importance, types - multiple and partial correlation; Methods of studying simple correlation - Scatter diagram, Karl Pearson's co-efficient of correlation, Spearman's rank correlation; Regression analysis - meaning and purpose of regression, types - simple and multiple linear regression; Methods and interpretations.

Number of Hours: 10 Hours

Module-4

Probability and Time Series : Theory of probability - meaning, importance and different terms; Theorems of probability – addition and multiplication; Time series analysis -meaning and importance, methods, graphs semi-averages, least squares, moving average, ratio to proportion.

Number of Hours:8 Hours

Module-5

Statistical Inference and Hypothesis Testing: Statistical inference – meaning, importance and applications; Sampling distributions – concept and standard error; Estimation – point and interval estimation; Hypothesis testing – meaning, steps and types of hypotheses; Null and alternative hypotheses; Level of significance and critical region; Type I and Type II errors; Tests of significance – Z-test, t-test and Chi-square test; Interpretation of statistical results and applications in research and planning.

Number of Hours: 8 Hours

Course outcome (Course Skill Set)

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

CO1: Apply basic statistical methods for data classification, tabulation and sampling.
CO2: Analyse relationships between variables using correlation and regression techniques.
CO3: Apply probability concepts and time series methods to analyse data trends.
CO4: Apply probability and time series methods to analyze data and support decision-making.
CO5: Apply statistical inference and hypothesis testing techniques for research and planning.

Suggested Learning Resources:

References:

1. Gupta, S.P. (2009), Statistical Methods, 38th Ed., Jain Book Agency, New Delhi.
2. Gupta, S.C., (2006), Statistical Methods, Sultan Chand & Sons, New Delhi.
3. Sancheti, D.C. & V.K. Kapoor, (2001), Statistics Theory Methods& Application, Sultan Chand & Sons, New Delhi.
4. Goon, A. M., M. K. Gupta and B. Das Gupta, (2002), Fundamentals of Statistics, Vol. II, World Press, Calcutta.
5. Gupta, S.C. and V. K. Kapoor, (2010), Fundamentals of Mathematical Statistics, 11th Ed., Sultan Chand & Sons, New Delhi.

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 **40%** (40 marks out of 100) **of maximum marks for CIE**.
- To pass the **SEE**, a student must score at least **35%** (35 marks out of 100 marks) **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 **40 out of 100 marks**.

Continuous Internal Evaluation (CIE): ● Methods of CIE suggested: MCQ, Written Quizzes, Open book test, Closed book test, Seminar or micro project, etc., The class teacher has to decide the topic for closed book test, open book test, Written Quiz and Seminar. In the beginning only the teacher has to announce the methods of CIE for the subject.
Semester End Examination (SEE): ● Theory SEE will be conducted as per VTU rules and scheduled time table, with common question papers for the subject. ○ The question paper will have ten questions. Each question is set for 20 marks. ○ There will be 2 questions from each module. Each of the two questions under a module (with a maximum of 3 sub questions), should have a mix of topics under that module. ○ The students have to answer 5 full questions, selecting one full question from each module Marks scored by the students out of 100 marks will be proportionally scaled down to 50 marks

II Semester

	FUNDAMENTALS OF DESIGN			
	Course Code	2BPLN205	Scheme	2026
	Type of Course	**PSC**	Semester	II
	Teaching Hours/Week (L:T:P)	2:0:0	CIE Marks	50
	Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	28:00:00:00:32	SEE Marks	-
	Credits	**2**	Total Marks	50
	Examination type (SEE)	-	Exam Hours	-
	Course Objective: (Course Skill Set) ● To introduce the basic concepts, elements, and principles of design relevant to urban planning. ● To develop an understanding of form, space, scale, proportion, and composition. ● To enhance creative thinking and visualization skills for designing functional urban spaces. ● To encourage critical analysis of existing urban environments and their design interventions. ● To apply design principles in basic projects focused on urban and community spaces.			
	Module 1			
	Introduction to Design Principles and Elements : Understanding elements of design: line, shape, form, space, texture, color; Principles of design: balance, contrast, unity, rhythm, proportion.; Concepts of visual perception and human-centered design.; Importance of aesthetics and functionality in urban spaces. Number of Hours: 5 Hours			
	Module 2			
	Form, Space, and Composition: Exploring relationships between form and space (mass, void, solids, enclosures).; Spatial organization and composition techniques in urban design.; Understanding scale, proportion, and hierarchy in public space design.; Exercises in sketching, diagramming, and basic model-making. Number of Hours: 5 Hours			
	Module 3			

	Human-Centered Design and Behaviour in Spaces: Examining human behaviour in relation to spatial design.; Concepts of accessibility, safety, comfort, and inclusiveness.; Behavioural mapping and observational studies of public spaces.; Designing for diverse populations (age, gender, mobility, culture).; Case studies of successful human-centric public spaces. Number of Hours: 6 Hours
	Module-4
	Applied Design in Urban Contexts : Application of design principles in small-scale urban projects.; Design exercises for streetscapes, public plazas, parks, and community spaces.; Concepts of contextual design, environmental sustainability, and adaptive reuse.; Introduction to design presentation techniques (sketches, models, diagrams).; Final design project reflecting principles of urban design and user needs. Number of Hours: 6 Hours
	Module-5
	Design Thinking and Design Communication: Design thinking and creative problem-solving; ideation and concept development; design iteration and refinement; visual communication through sketches, diagrams and models; design evaluation and presentation; integrated design exercise applying elements and principles of design. Number of Hours: 6 Hours
	Course outcome (Course Skill Set) At the end of the course the student will be able to : **CO1:** Explain and apply basic design elements and principles in urban spaces. **CO2:** Analyse form, space, scale, proportion and composition in urban design. **CO3:** Apply human-centred design principles considering accessibility, safety, comfort and inclusiveness. **CO4:** Apply design principles to develop contextual and sustainable urban design solutions. **CO5:** Develop and communicate design concepts through creative thinking, visualisation and presentation techniques.

Suggested Learning Resources:

References:

1. Ching Francis D.K. (2007). Architecture: Form, Space, and Order. John Wiley & Sons, Inc., Hoboken, New Jersey.
2. Lynch K. (1964). The Image of the City. The MIT Press, Massachusetts.
3. Alexander C. (2015). A Pattern Language: Towns, Buildings, Construction. Oxford University Press, Oxford.
4. Jacobs J. (1992). The Death and Life of Great American Cities. Vintage, New York.
5. Dr. Friedman (2021). Fundamentals of Sustainable Urban Design. Springer, Berlin.
6. Black P. and Michael Martin (2024). Applied Urban Design: A Contextually Responsive Approach. Routledge, New York.
7. Wagner C. (2023). Visualizations of Urban Space: Digital Age, Aesthetics, and Politics. Routledge, London.

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 **20%** (40 marks out of 50) **of maximum marks for CIE**.
- To pass the **SEE**, a student must score at least **35%** (35 marks out of 100 marks) **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 **40 out of 100 marks**.

Continuous Internal Evaluation (CIE):

- Methods of CIE suggested: MCQ, Written Quizzes, Open book test, Closed book test, Seminar or micro project, etc.,

The class teacher has to decide the topic for closed book test, open book test, Written Quiz and Seminar. In the beginning only the teacher has to announce the methods of CIE for the subject.

II Semester

	COMPUTER FUNDAMENTALS FOR SPATIAL PLANNING			
	Course Code	2BPLN206	Scheme	2026
	Type of Course	**PSC**	Semester	II
	Teaching Hours/Week (L:T:P)	2:0:2	CIE Marks	100
	Total Hours of Pedagogy per semester L /T/S/P/SL&TW:	28:00:28:00:34	SEE Marks	-
	Credits	**3**	Total Marks	100
	Examination type (SEE)	-	Exam Hours	-
	Course Objective: (Course Skill Set) ● To equip the fundamental skills to apply computer-based relevant software, tools and technologies in spatial planning, which include spatial computing such as digital creation, spatial analysis, query, presentation and visualization of maps and built environment.			
	Module 1			
	Computer Systems for Spatial Planning : Computer systems: mainframes, minicomputers, workstations, personal computers, servers, supercomputers, embedded systems, mobile systems, etc.; Hardware configuration suitable/ relevant for spatial computing: central processing unit, storage capacity, random access memory, processor, etc., including various input & output devices, computer peripherals, etc.; Software: various operating systems, spatial planning application software related to Computer Aided Design (CAD), Geographic Information Systems (GIS), visualization, etc. Number of Hours: 12 Hours			
	Module 2			
	Concepts of Spatial Data and Analysis : Geospatial data: relative geographic information, Earth and its features, coordinate systems; Spatial data: raster data / remote sensing data (platforms, satellite data / imagery: pixel/ grid data, bands, resolution, stereo satellite data, digital elevation model) and vector data/ spatial data structures (points, lines, polygons, annotations). Number of Hours: 12 Hours			
	Module 3			
	Concepts of Non-spatial data - Attribute data / data sets (cells, fields and records).; Spatial data creation and analysis: georeferencing, digitization, thematic modelling and layer management, overlay analysis – buffer, intersection, union, merge, clip, etc.; Data integration and visualization: linking spatial and non-spatial data (creation and joining of tables), data query, map charts/ graphs, presentation and visualization. Number of Hours: 12 Hours			
	Module-4			
	Basics of CAD and GIS: Introduction to CAD: open source and proprietary CAD software, basic skills (drawing, editing, layering), file formats and conversion, model and layout space, 2D and 3D drawings, basic CAD modelling and visualization skills (rendering, animation).; Introduction to GIS: open source			

	(QGIS) and other proprietary software, store, manage, analyse, and display geographic data, enabling the creation of maps, scales, format conversions/ compatibility with various other applications. Number of Hours: 10 Hours
	Module-5
	Applications of Computer-Based Tools in Spatial Planning : Projects / exercise: urban and regional planning project / exercise of different scales (area / neighbourhood/ urban/ regional) through hands on practice / lab sessions.; Creation of various maps of different scales such as base maps, land use maps, infrastructure and utility maps, transportation and mobility maps, etc. Number of Hours: 10 Hours
	Course outcome (Course Skill Set) At the end of the course the student will be able to : **CO1:** Identify computer hardware, software and systems used in spatial planning. **CO2:** Explain spatial data types, coordinate systems and geospatial data structures. **CO3:** Apply spatial and non-spatial data integration, analysis and visualization techniques. **CO4:** Apply basic CAD and GIS tools for spatial data creation, editing and mapping. **CO5:** Develop spatial planning maps and outputs using computer-based tools.

Suggested Learning Resources:

References:

1. Bolstad P. (2019). GIS Fundamentals: A First Text on Geographic Information Systems. XanEdu, Livonia.
2. Kumar V. & S. Kumar (2020). Computer systems and architecture. Wiley India, New Delhi.
3. Tickoo S. (2023). Exploring AutoCAD Map 3D 2023 for GIS Engineers. BPB Publications, Delhi.
4. Wegman M., Jakob Schwalb-willmann, Stefan Dech (2020). An Introduction to Spatial Data Analysis: Remote Sensing and GIS with Open Source Software. Pelagic Publication Ltd., London.
5. Tanenbaum Andrew S., Herbert Bos (2024). Modern Operating Systems. Pearson Education, London.

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 **40%** (40 marks out of 100) **of maximum marks for CIE**.
- To pass the **SEE**, a student must score at least **35%** (35 marks out of 100 marks) **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 **40 out of 100 marks**.

Continuous Internal Evaluation (CIE):

- Methods of CIE suggested: MCQ, Written Quizzes, Open book test, Closed book test, Seminar or micro project, etc.,

The class teacher has to decide the topic for closed book test, open book test, Written Quiz and Seminar. In the beginning only the teacher has to announce the methods of CIE for the subject.

Indian Constitution

Course Code	**1BICO107**	**CIE Marks**	**50**
Teaching Hours/Week (L: T:P: S)	**1:0:0**	**SEE Marks**	**---**
Total Hours of Pedagogy	**01Hours/Week**	**Total Marks**	**50**
Credits	**00 (PP)**	**Exam Hours**	**-**

Course objectives: This course will enable the students

1. To know about the basic structure of the Indian Constitution.
2. To know the Fundamental Rights (FRs), DPSP's, and Fundamental Duties (FD's) of our constitution.
3. To know about our Union Government, political structure & codes, and procedures.
4. To know the State Executive & Elections system of India.
5. To learn the Amendments and Emergency Provisions, other important provisions given by the constitution.

Teaching-Learning Process

These are sample Strategies, which teacher can use to accelerate the attainment of the various course outcomes and make Teaching –Learning more effective: Teachers shall adopt suitable pedagogy for effective teaching - learning process. The pedagogy shall involve the combination of different methodologies which suit modern technological tools.

(i) Direct instructional method (Low/Old Technology), (ii) Flipped classrooms (High/advanced Technological tools), (iii) Blended learning (Combination of both), (iv) Enquiry and evaluation based learning, (v) Personalized learning, (vi) Problems based learning through discussion.

Apart from conventional lecture methods, various types of innovative teaching techniques through videos, animation films may be adapted so that the delivered lesson can progress the students In theoretical applied and practical skills.

Module - 1

Introduction to Indian Constitution: The Necessity of the Constitution, The Societies before and after the Constitution adoption. Introduction to the Indian constitution, The Making of the Constitution, The Role of the Constituent Assembly. The Preamble of Indian Constitution & Key concepts of the Preamble. Salient features of India Constitution.

Module - 2

FR's, FD's and DPSP's: Fundamental Rights and its Restriction and limitations in different Complex Situations. Directive Principles of State Policy (DPSP) and its present relevance in our society with examples. Fundamental Duties and its Scope and significance in Nation building.

Module - 3

Union Executive : Parliamentary System, Union Executive – President, Prime Minister, Union Cabinet, Parliament - LS and RS, Parliamentary Committees, Important Parliamentary Terminologies. Supreme Court of India, Judicial Reviews and Judicial Activism.

Module - 4

State Executive & Elections, Amendments and Emergency Provisions: State Executive, Election Commission, Elections & Electoral Process. Amendment to Constitution (How and Why) and Important Constitutional Amendments till today. Emergency Provisions.

Module-5

Professional Ethics: Ethics & Values. Types of Ethics. Scope & Aims of Professional & Engineering Ethics. Positive and Negative Faces of Engineering Ethics. Clash of Ethics, Conflicts of Interest. The impediments to Responsibility. Trust & Reliability in Engineering, IPRs (Intellectual Property Rights), Risks, Safety and liability in Engineering.

Course outcome (Course Skill Set) :

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

CO1	Analyse the basic structure of Indian Constitution.
CO2	Remember their Fundamental Rights, DPSP's and Fundamental Duties (FD's) of our constitution.
CO3	know about our Union Government, political structure & codes, procedures.
CO4	Understand our State Executive & Elections system of India.
CO5	Remember the Amendments and Emergency Provisions, other important provisions given by the constitution.

Assessment Structure

This course shall be assessed through Continuous Internal Assessment (CIA) only. There shall be no Semester-Wise End Examination (SWE), and the course shall carry no credits.

The CIA shall be conducted for **50 marks**. A student shall be required to secure a minimum of **40% of the CIA marks, i.e., 20 out of 50 marks**, to qualify in the course.

The internal assessment shall be conducted as follows:

1. **First Test:** After completion of approximately 35% of the prescribed syllabus, a test shall be conducted for **25 marks**.
2. **Second Test:** After completion of approximately 85% of the prescribed syllabus, a second test shall be conducted for **25 marks**.
3. **Assignments:** Two assignments, each carrying **25 marks**, may be conducted as designed by the course teacher.

The total marks obtained in the two tests and two assignments, out of **100 marks**, shall be scaled down to **50 marks** for CIA.

The assessment records shall be maintained by the course teacher and submitted or uploaded whenever required by the **Registrar (Evaluation)** or the **Examination Section**.

Suggested Learning Resources:

Textbook:

1. **"Constitution of India" (for Competitive Exams)** - Published by Naidhruva Edutech Learning Solutions, Bengaluru. – 2022.
2. "**Engineering Ethics**", M.Govindarajan, S.Natarajan, V.S.Senthilkumar, Prentice –Hall, 2004.

Reference Books:

1. **"Samvidhana Odu" - for Students & Youths by Justice HN Nagamohan Dhas, Sahayana, kerekon.**
2. **"Constitution of India, Professional Ethics and Human Rights"** by Shubham Singles, Charles E. Haries, and et al: published by Cengage Learning India, Latest Edition – 2019.
3. "**Introduction to the Constitution of India**", (Students Edition.) by Durga Das Basu (**DD Basu**): Prentice –Hall, 2008.
4. **"The Constitution of India"** by Merunandan K B: published by Merugu Publication, Second Edition, Bengaluru.

Suggested Learning Activities may include (but are not limited to):

- Course Project
- Case Study Presentation
- Programming Assignment
- Tool/Software Exploration
- Literature Review
- Open Book Test (preferably at RBL4 and RBL5 levels)
- GATE-based Aptitude Test
- Assignment (at RBL3, RBL4, or RBL5 levels)
- Any other relevant and innovative academic activity
- Use of MOOCs and Online Platforms

Suggested Innovative Delivery Methods may include (but are not limited to):

- Flipped Classroom
- Problem-Based Learning (PBL)
- Case-Based Teaching
- Simulation and Virtual Labs
- Partial Delivery of course by Industry expert/ industrial visits
- ICT-Enabled Teaching
- Role Play