MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR
DEPARTMENT OF ARCHITECTURE AND PLANNING
Scheme for B.Arch. Architecture with Honors

S.No.	Course Name	Semester	Type	Credits	L	T	P	S
1	Honors Elective - 1	V	Theory	3	1	2	0	0
2	Honors Elective – 2	V	Theory	3	1	2	0	0
3	Honors Elective – 3	VI	Theory	3	1	2	0	0
4	Honors Elective – 4	VI	Theory	3	1	2	0	0
5	Honors Elective – 5	VII	Theory	3	1	2	0	0
6	Honors Elective - 6	IX	Theory	3	1	2	0	0

Honors elective courses will be taken from the Departmental Subject pool

S.No.	Course Name	Type	Credits	L	T	P	S
1	Product Design	Theory	3	1	2	0	0
2	Vernacular Architecture	Theory	3	1	2	0	0
3	Human- Computer Interaction Design	Theory	3	1	2	0	0
4	Design for Healthcare facilities	Theory	3	1	2	0	0
5	Building Information Modelling (BIM) application for Built Environment	Theory	3	1	2	0	0
6	Parametric Design and Computational Geometry	Theory	3	1	2	0	0
7	Illustrations and Painting	Theory	3	1	2	0	0
8	Urban Sociology	Theory	3	1	2	0	0
9	Urban Infrastructure Planning	Theory	3	1	2	0	0
10	Urban Conservation	Theory	3	1	2	0	0
11	Urban Finance	Theory	3	1	2	0	0
12	Architectural Journalism	Theory	3	1	2	0	0

(HOD)

DUGC CONVENER :

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

DEPARTMENT OF ARCHITECTURE AND PLANNING

Scheme for B.Arch. Architecture with Honors

Syllabus of Courses for B. Arch Honors

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Product Design (Program Elective)	**3**	**1**	**2**	**0**	**0**

PREREQUISITE

NONE

COURSE OBJECTIVE(s):

- To sensitize the students about the design and detailing of industrial products and to improve upon them with respect to usage and aesthetics.

COURSE OUTCOMES

1. Understand the role of design in enhancing the user experience and the significance of product design in developing successful industrial products.
2. Utilize the principles of design thinking to create innovative, user-centered product designs that address user requirements, desires, and preferences.
3. Master the necessary skills for detailing and refining product designs, such as prototyping, testing, and refining, to achieve the desired levels of usability, functionality, and aesthetics.

COURSE ASSESSMENT

The Course Assessment (culminating to the final grade), will be made up of the following three components;

S. No.	Component	Weightage
a)	PRS	30%
b)	PRM	30%
c)	PRE	40%

COURSE CONTENTS

Module-I (Design Theories): Introduction to product design, history of product design, design concepts and methodologies and design process. Learning current design trends and design thinking as tool for innovation.

Module-II (Manufacturing Techniques): Understanding various types of casting, moulding and 3D printing process for manufacturing with metals and plastics. Knowing various techniques regarding product detailing, joining and welding different metal and plastic components. Learning various surface finishing techniques for metals and plastics

Module-III (Design & Prototyping): Developing conceptual mood boards & sketches for a design exercise. Applying rapid prototyping skills to develop 3D modals of conceptual designs.

EXERCISES

- Study of various products in the market.
- Design of small hand-held products like mobiles, watches, cameras, etc.
- Design of Home Appliances.
- Studio presentations, concept sketching and prototyping based on above topics.

REFERENCES: -

1. 101 Design Methods, Vijay Kumar, John Wiley and Sons INC.
2. Nature of Forms: Design Book for Product Design, FAB Lab Innovation
3. Creating a Brand Identity: A Guide for Designers, Catharine Slade
4. The Design of Everyday Things, Don Norman
5. Emotional Design, Don Norman

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Vernacular Architecture (Program Elective)	3	1	2	0	0

PREREQUISITE

NONE

COURSE OBJECTIVE(s)

- To provide an overview of vernacular architecture of India and to study the various approaches and concepts in the study of vernacular architecture, to study how the vernacular architectural forms are dictated by geography, climate and socio-cultural factors.

COURSE OUTCOMES

1. To understand the impacts of geographical and climatic features of a region on architectural forms and styles.
2. Exposure to various traditional materials and construction techniques used in vernacular architectural forms.
3. Acquire knowledge on traditional materials and construction techniques which can be used in the design of built spaces in the modern context.

COURSE ASSESSMENT

The Course Assessment (culminating to the final grade), will be made up of the following three components;

S. No.	Component	Weightage
a)	PRS	30%
b)	PRM	30%
c)	PRE	40%

COURSE CONTENTS

MODULE I- Introduction to Vernacular Architecture: Definition and characteristics of Vernacular Architecture; Differentiating Vernacular Architecture from traditional architecture; Purpose and scope of Vernacular Architecture; Factors influencing Vernacular Architecture; Physiography, Climate, culture, Significance of vernacular architecture for sustainable development.

MODULE II-Vernacular styles evolved in Northern Region of India: Case studies covering settlement pattern, architectural forms and construction details of Northern India - Jammu Kashmir, Himachal Pradesh, Uttarakhand

MODULE III- Vernacular styles evolved in Western Region of India: Case studies covering vernacular settlement pattern, architectural forms and construction details of Western India Rajasthan and Gujarat.

MODULE IV-Vernacular styles evolved in Southern Region of India: Case studies covering vernacular settlement pattern, architectural forms and construction details of Southern India - Kerala, Tamil Nadu etc.

MODULE V- Vernacular styles evolved in Eastern Region of India: Case studies covering vernacular settlement pattern, architectural forms and construction details of Eastern India and Northern eastern states

Exercises: Class work based on above topic; Conceptual design proposal of building inspired by vernacular architecture of a place.

REFERENCES

1. Rudfoky , B., "Architecture without Architects" , University of New Mesvilo Press
2. Wells C. "Perspectives in Vernacular Architecture", I-XIII University of Missouri Press
3. Oliver P. "Encyclopedia of Vernacular Architecture of the World", Cambridge University Press
4. Cooper G., and Dawson, B." Traditional Building of India", Thames and Hudson
5. Glassie H.H., "Vernacular Architecture", Indiana University Press.
6. https://onlinecourses.swayam2.ac.in/cec19_ar01/preview

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Human-Computer Interaction Design (Program Elective)	**3**	**1**	**2**	**0**	**0**

PREREQUISITE

NONE

COURSE OBJECTIVE(s):

- To understand the aspects of design and human behaviour across wide range of products.

COURSE OUTCOMES:

1. To develop an understanding of UX/UI and IOT enabled technology for enhanced experience.
2. To explore the potential of digital interface from web and mobile platforms to products and appliances.
3. To enable students to take-up an interface design project.

COURSE ASSESSMENT

The Course Assessment (culminating to the final grade), will be made up of the following three components;

S. No.	Component	Weightage
a)	PRS	30%
b)	PRM	30%
c)	PRE	40%

COURSE CONTENTS

MODULE 1: Ideation: Understanding the user, interface and the experience associated with day-to-day products. Understanding the concept of sensorial, cognitive, behavioural and socio-cultural aspects of design for various users. Learning concepts of Gestalt principles, design forecasting, colour theory and typography in visual communication. Developing mood-boards/storyboards/persona mapping and conceptual sketches for designing icons and logos. Extended reality in architectural presentation, documentation, visualization and use of AR/VR tools.

MODULE 2: Prototyping: Case studies of successful and widely recognized designs. Explore the concept of Wireframing in interface design and its various prototyping methods such as story boards/paper cut-outs and digital tools such as Adobe XD / Figma etc. Usability testing of prototypes, planning and conducting usability tests and Heuristic evaluation of prototypes.

EXERCISES

- Conceptualizing, designing and prototypes presentation of small UX/UI projects.

REFERENCES: -

1. Design for Everyday Things - Don Norman
2. Gamification at Work: Designing Engaging Business Software - Janaki Kumar & Mario Herger
3. The Encyclopedia of Human-Computer Interaction - Interaction Design Foundation
4. The Social Design of Technical Systems: Building Technologies for Communities - Brian Whitworth

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Design for Healthcare Facilities (Program Elective)	**3**	**1**	**2**	**0**	**0**

PREREQUISITE
NONE

COURSE OBJECTIVE(s)

- To make the student aware of various issues related to design of healthcare buildings.

COURSE OUTCOMES:

1. Understand the principles of healthcare design, planning, and delivery systems, including the evolution of human settlements and healthcare facilities
2. Analyze site selection and planning principles for hospitals, including orientation of buildings, terrain, and climatological considerations
3. Understand healing design of hospitals, as well as accreditation by Indian and international accreditation agencies, green ratings, and how to create safe hospitals and hospitals of the future.

COURSE ASSESSMENT:
The Course Assessment (culminating to the final grade), will be made up of the following three components;

S. No.	Component	Weightage
g)	PRS	30%
h)	PRM	30%
i)	PRE	40%

COURSE CONTENTS
MODULE I: Introduction- What is Health; What is wellness; Upgradation of Sub Centres to Wellness Centres; Human Settlements and healthcare facilities- Evolution; Healthcare Delivery Systems.

MODULE II: Planning Principles- Site Selection for Hospital; Project Feasibility & Viability Analysis; Socio-Economic Analysis; Techno-Economic Feasibility Report; SWOT Analysis; Introduction to Standards; Indian Healthcare and Hospital Standards; Laws Applicable to Medical Practice & Hospitals in India. **Site Planning Principles for Hospitals-** Orientation of Buildings. Terrain. Climatological considerations; Master-Planning of Hospitals w.r.t. Urban Design and Landscaping.

MODULE III: Components of a Hospital- Introduction to Evidence Based Healthcare Design; Accident & Emergency; OPD; IPD; ICU, Hospital labs; OT; Administrative Department; Laundry; Mortuary; Deitary Department; Blood Bank; Inter-Departmental relationship in a hospital. Balancing Factors. **Design considerations** for Health Sub-centres, Primary Health Centres, Community Health Centres, District Hospitals.

MODULE III: Design of AYUSH Hospitals- Ayurveda, Yoga, Unani, Siddha and Homeopathy. Integration of Vastu, Feng Shui in Hospital Design. Introduction to the design of Teaching Hospitals; Interrelationship between Classrooms and Clinics; Air Ambulance Services, Green Corridors and drones. Review & Assessment.

MODULE IV: Introduction to Healing Design of Hospitals. Accreditation of Hospitals. Indian and International Accreditation Agencies. Green Ratings. Safe Hospitals. Hospitals of the Future.

MODULE V: Design of Ward, Design of Critical Care Centre, Physically Challenged Facilities, Design of a basic Primary Health Centre, Preparation of the programme (flowchart) of a basic hospital. Allied Units: Special Design Interventions for: Cancer Units (Radiation prevention) Burns Units (Special Considerations), Eye Hospital.

MODULE VI: Water Supply, Gas Supply, HVAC and Bio-Medical Waste Disposal, BIM Software in Hospital, High Infection Centres: Infection Control in a Hospital; SARS, HIV and TB, ART Centre, DOTS centre, Hospital Construction Management.

Exercises:

- Case studies presentations and preparation of reports on above topics. Case Study of AIIMS.

REFERENCES: -

1. Innovations in Hospica Architecture- Stephen Verderber & Ben J. Refuerzo.
2. Modern Trends in Planning, Designing of Hospitals: Principles and Practices- Shakti Kumar Gupta, Sunil Kant, R Chandrashekhar and Sidhartha Satpathy
3. Hospitals and Nursing Homes Planning, Organisations and Management- Syed Amin Tabish

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Building Information Modelling (BIM) application for Built Environment (Program Elective)	**3**	**1**	**2**	**0**	**0**

PREREQUISITE

NONE

COURSE OBJECTIVE(s):

1. To sensitize students about Building Information Modelling (BIM) and its application in architectural design, construction, and facility management.
2. To provide students with hands-on experience in creating BIM models using industry-standard software and learn how to collaborate with other professionals in the construction industry.
3. The course also covers the benefits and challenges of implementing BIM in real-world projects, and its potential impact on the construction industry.

COURSE OUTCOMES:

1. Learning the fundamentals of Building Information Modelling and its application in the construction industry.
2. To create 3D BIM models using industry-standard software.
3. Identify the benefits and challenges of implementing BIM in real-world projects.
4. Evaluate the potential impact of BIM on the construction industry.

COURSE ASSESSMENT

The Course Assessment (culminating to the final grade), will be made up of the following three components;

S. No.	Component	Weightage
1.	PRS	30%
2.	PRM	30%
3.	PRE	40%

COURSE CONTENTS

Module 1: BIM Software and Tools - Overview of BIM software and tools, BIM workflows and processes, Implementation strategies for BIM in real-world projects

Module 2: BIM Implementation -Hands-on training in using BIM software, Project monitoring through BIMR, creating 3D models using BIM software.

Module 3: Modelling and collaboration in BIM -BIM standards and protocols, Data exchange and inter-operability for Architectural, Structural, Services (MEP, HVAC) modelling with BIM, Documentation, Project visualization, Project review and Clash detection, Quantification and estimation

Module 4: BIM Impact- Emerging trends in BIM and their implications for the future , Potential impact of BIM on the construction industry, Cost and time savings through BIM, Ethical and legal considerations in using BIM

EXERCISES

Exercises based upon above modules.

REFERENCES: -

1. Eastman, C., Teicholz, P., Sacks, R., & Liston, K. (2011). BIM handbook: A guide to building information modeling for owners, managers, designers, engineers and contractors. John Wiley & Sons.
2. Krygiel, E., & Nies, B. (2014). Green BIM: Successful sustainable design with building information modeling. John Wiley & Sons.

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Parametric Design and Computational Geometry (Program Elective)	**3**	**1**	**2**	**0**	**0**

PREREQUISITE

NONE

COURSE OBJECTIVE(s)

- To familiarize and equip the students with basic knowledge of Parametric Design and Computational Geometry and develop skills for applying the same in their designs.

COURSE OUTCOMES

1. To develop understanding related to methodology and various approaches in parametric and computational design.
2. To be able to understand basic concepts of mathematical and Computational Geometry
3. To develop basic expertise in using at least one of the software tools used in parametric design and apply it in design and development of building elements / components.

COURSE ASSESSMENT

The Course Assessment (culminating to the final grade), will be made up of the following three components;

S. No.	Component	Weightage
a)	PRS	30%
b)	PRM	30%
c)	PRE	40%

COURSE CONTENTS

MODULE I: Basic concepts and terminology in Parametric and Computational Design practices. History of parametric and Computational Design, evolution of tools and practice, early exponents and epochs.

MODULE II: Parametrizing Design: - Planning for a parametric design approach, framing the end goals, finalizing initial parameters, making logic flowcharts and basic diagramming. Mathematics for Computational Design: Introduction/Revision of different mathematical concepts used in Parametric and Computational Design.

MODULE III: Tools in Parametric and Computational Design - Introduction to different tools in Computational and Parametric Design, including McNeel Rhinoceros + Grasshopper and other Plugin, Dynamo for Revit, Exploring new alternative software tools.

MODULE IV: Applying Parametric approach: - Using the tools and approaches learned in a real design problem of designing a building facade/space/building element/furniture etc.

MODULE V: Making in Parametric Design – Familiarizing making and fabricating designs developed using a parametric and Computational Design approach. Assignments to be framed to enable practical application, like designing/fabricating building elements/components using tools and approaches learned in the course.

EXERCISES

Exercises based upon above modules.

REFERENCES: -

1. Arturo Tedeschi. *AAD – Algorithms-Aided Design*. Le Penseur Publisher, 2014.
2. Robert Woodbury. *Elements of Parametric Design*. Routeledge, 2010.
3. Helmut Pottmann, Andreas Asperl, Michael Hofer, and Axel Kilian. *Architectural Geometry*. Bentley Institute Press, 2007
4. Wassim Jabi. *Parametric Design for Architecture*. Lawrence King Publisher, 2013
5. Robin Evans. *The Projective Cast: Architecture and ITs Three Geometries*. The MIT Press, 2000
6. Robin Evans. *Translations from Drawing to Building and Other Essays*, AA Document 2, The MIT Press, 1997.
7. *Grasshopper, a graphical editor for form generations*
8. *The Grasshopper Primer Third Edition | Foundations*
9. Rajaa Issa. *Essential Mathematics for Computational Design – Second Edition*
10. Rajaa Issa. *The Grasshopper Primer – Second Edition*
11. Zubin Khabazi. *Generative Algorithms*

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Illustration and Painting (Program Elective)	**3**	**1**	**2**	**0**	**0**

PREREQUISITE

NONE

COURSE OBJECTIVE(s)

- To understand the advanced concepts of watercolor and acrylic painting and use it in practice of art, ideation or design presentation. Students will learn basic techniques, color theory, and composition, and apply these skills to create original works of art.

COURSE OUTCOMES

1. Develop basic painting skills in watercolor, acrylic and other media.
2. Understand the properties and techniques of watercolor, acrylic paint and other media
3. Practice color theory and composition with various media.
4. Create original works of art using watercolor and acrylic and other media.

COURSE ASSESSMENT

The Course Assessment (culminating to the final grade), will be made up of the following three components;

S. No.	Component	Weightage
a)	PRS	30%
b)	PRM	30%
c)	PRE	40%

COURSE CONTENTS

Module 1: Introduction to Watercolor Painting-Materials and tools, Basic techniques, Color theory and mixing.

Module 2: Watercolor Landscape Painting-Composition and design, Perspective and depth, Creating texture and contrast.

Module 3: Introduction to Acrylic Painting-Materials and tools,Basic techniques,Color theory and mixing

Module 4: Acrylic Still Life Painting-Composition and design,Light and shadow,Creating form and volume.

Module 5: Advanced Watercolor Techniques- Layering and glazing, Wet-on-wet and wet-on-dry techniques, Negative space and masking

Module 6: Advanced Acrylic Techniques-Layering and blending, Impasto and texture,Using medium and additives

Module 7: Final Project: Watercolor Landscape or Acrylic Still Life-Students will create a final project using the techniques and skills learned in the course,Critique and feedback on final projects.

REFERENCES

1. "Watercolor Painting: A Comprehensive Approach to Mastering the Medium" by Tom Hoffmann
2. "The Watercolorist's Essential Notebook" by Gordon Mackenzie
3. "Watercolor Success!" by Chuck Long
4. "Color Mixing Recipes for Watercolor" by William F. Powell
5. "Acrylic Painting Mediums and Methods: A Contemporary Guide to Materials, Techniques, and Applications" by Rheni Tauchid
6. "Acrylics: Techniques and Tutorials for the Complete Beginner" by Will Freeborn
7. "Acrylic Revolution: New Tricks and Techniques for Working with the World's Most Versatile Medium" by Nancy Reyner
8. "Color: A Course in Mastering the Art of Mixing Colors" by Betty Edwards
9. "Composition: Understanding Line, Notan and Color" by Arthur Wesley Dow
10. "The Elements of Landscape Oil Painting: Techniques for Rendering Sky, Terrain, Trees, and Water" by Suzanne Brooker.

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Urban Sociology (Program Elective)	**3**	**1**	**2**	**0**	**0**

PREREQUISITE

NONE

COURSE OBJECTIVE(s)

- The architecture of built spaces has close relationship with architecture of society. The course intends to acquaint the learners with social dimensions of built environment and emergent design processes in urban areas. Also how architectural designs are molded by social structures and processes and vice versa in urban societies.

COURSE OUTCOMES:

1. Understand integral nature of built environment and society.
2. Understand the linkages between social institutions, and social structures and their manifestation in design of built spaces in urban areas.
3. To be able to incorporate social dimension in designing of built spaces in urban areas.
4. Making a positive intervention to improve overall quality of life and well-being in urban society.

COURSE ASSESSMENT

The Course Assessment (culminating to the final grade), will be made up of the following three components.

S. No.	Component	Weightage
a)	CWS	30%
b)	MTE	30%
c)	ETE	40%

COURSE CONTENTS

MODULE I: Introduction,Man, environment and society, Relationship between Social structures and Spatial Structures and effects on society, social interaction, and well-being.

MODULE II: Basic Sociological Concepts-Society, community, Social Groups, Status and Role, Culture, Norms and Values, Social Stratification, Power and Authority, Gender, Social Institutions and Pattern of change- family, marriage, religion, economy and polity.

MODULE III: Understanding Urban Society-Meaning and the concept of city, theoretical trajectories of urban growth and development, Urban society, urbanism, modernity, urbanization, globalization, demographic transition and migration, Local self-government and administrative structures.

MODULE IV: Contemporary Debates-Sustainable Development, deep ecology, environmental and social concerns,Social Justice, Inclusion and Public spaces, public policy and programs for urban development.

Exercises:

- Case studies and problem solving design exercises, Field visits, Expert lectures and MOOCs

REFERENCES: -

1. Patrick Geddes, 1915. Cities in Evolution: An Introduction to the Town Planning Movement and to the Study of Civics. London: Williams & Norgate
2. C A Doxiadis, Ekistics, the Science of Human Settlements, From Science, Vol.170, No. 3956, October 1970, p. 393-404
3. Hillier B. & Hanson, J. 1984. The Social Logic of Space. Cambridge: Cambridge University Press.
4. Amos Rapoport. 1969. House Form and Culture. Prentice Hall
5. Jones, Paul, The sociology of architecture, 2011, Liverpool University Press
6. Amos Rapoport. 1977. Human Aspects of Urban Form: Towards a Man-Environment Approach to Urban Form and Design. Pergamon Press.
7. Mendes, Maria Manuela, Sá, Teresa, Cabral, João (Eds.) 2017 'Architecture and the Social Sciences: Inter- and Multidisciplinary Approaches between Society and Space' Springer international publications.
8. Michael Guggenheim Ola Söderström (eds.) 2010.
9. Re-shaping Cities: How Global Mobility Transforms Architecture and Urban Form. Routledge. ISBN: 9780415492904
10. Knox, Paul L., The Social Production of the Built Environment, Ekistics. 49(295), July/August 1982, pp 291-297
11. King, Anthony D. 1980. Building and Society, Routledge Kegan & Paul.
12. Haralambos & Holborn. Sociology: Themes and Perspectives. Harper Collins; Eight Edition (2014) ISBN: 9780007583195
13. N. Jayapalan. 2013. Urban Sociology. New Delhi: Atlantic Publishers & Distributors.
14. Gopal Bhargava, 2003. Urban Problems and Urban Perspectives. Abhinav Publications

ISBN: 9788170171416

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Urban Infrastructure Planning (Program Elective)	**3**	**1**	**2**	**0**	**0**

PREREQUISITE

NONE

COURSE OBJECTIVE(s)

- To provide a basic understanding of infrastructure provisions and appraise about select concepts for suitable provisions and implementation.

COURSE OUTCOMES:

1. Understand the infrastructure planning process and the responsibilities of various stakeholders in planning and implementing infrastructure initiatives.
2. Analyze the current status of infrastructure in India's various sectors and identify the main challenges and improvement opportunities.
3. Identify and manage the various risks that plague infrastructure projects, such as financial, regulatory, environmental, and social risks, and develop effective risk management strategies.
4. Build strong communication and cooperation skills, including the capacity to work in cross-functional teams, convey complicated information to stakeholders, and negotiate project goals.

COURSE ASSESSMENT

The Course Assessment (culminating to the final grade), will be made up of the following three components.

S. No.	Component	Weightage
d)	CWS	30%
e)	MTE	30%
f)	ETE	40%

COURSE CONTENTS

MODULE I: Introduction to Infrastructure and to the Transportation, power, and telecom sectors. Rural and Urban Infrastructure Sectors, Players, and Phases in an Infrastructure Project.

MODULE II: Project Finance and Public-Private Partnerships. Construction and Economic Risks, Political and Social Risks, Stakeholder Management, Design Thinking, and Negotiations.

MODULE III: Socio-Economic Analysis and Good Governance for Infrastructure. Modeling Flexible Project Arrangements.

Exercises:

- Paper presentation, understanding through case studies and documentation of campuses.
- Formulation of program requirements for an educational campus.

REFERENCES: -

1. Ghai, D. P.; Khan A. R., The basic needs: Approach to development, Pub. by ILO, Geneva, 1977.
2. Bijlani, H.U.; Rao, P.S.N., Water supply and sanitation in India, Pub. by Oxford and IBH Publishing, New Delhi, 1990.
3. Lyer, R.R., Towards Water Wisdom - Limits, Justice, Harmony, Pub. by Sage Publications, New Delhi, 2007.
4. Manual on Sewerage and Sewage Treatment, Ed. I & II. 601, Pub. by CPHEEO, New Delhi,
5. 1980.
6. Bandela, N.N; Tare, D.G., Municipal solid waste management, Pub. by B.R. Publishing, 2009.
7. Singh, S., Solid waste management in resettlement colonies in Delhi, Pub. by Bookwell Publications, 2006.

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Urban Conservation (Program Elective)	**3**	**1**	**2**	**0**	**0**

PREREQUISITE

None

COURSE OBJECTIVE(s)

- To make students sensitive to Heritage and Architectural Conservation and introduce them to theories of conservation.

COURSE OUTCOMES

1. To develop an understanding of various conservation practices and theories.
2. To understand the importance of various types of heritage.
3. To be able to develop strategies and frameworks for the protection of heritage.

COURSE ASSESSMENT

The Course Assessment (culminating to the final grade), will be made up of the following three components;

S. No.	Component	Weightage
1.	CWS	30%
2.	MTE	30%
3.	ETE	40%

COURSE CONTENTS

Module I: Understanding conservation; Preservation and restoration; Socio-cultural-economic and environmental significance of conservation; Various aspects of built and natural heritage; Conservation practice; Glossary- understanding redevelopment, revitalization, regeneration, rehabilitation and renewal.

Module II: Basic Principles of Conservation and Degrees of Interventions: Conservation principles; Conservation conventions and practices adopted at International, National and local levels for heritage buildings, sites and cities;

Module III: Introduction an role of UNESCO and ICOMOS, Introduction to various important charters like: Venice Charter, Burra Charter, COMOS Charter. Urban Conservation: Planning & Management.

Module IV: Conservation polices, norms and guidelines, Govt. initiatives, programs and mission for urban conservation, Building byelaws for heritage areas or sites in India

Module V: Role of national, state level organizations and Urban Local Bodies for Urban Conservation, ASI, state archaeology departments, Significance of INTACH and other NGOs for conservation

Module VI: Study of successful Case examples of urban conservation in India and abroad, New and emerging concepts of urban conservation and summarization of the course

EXERCISES

- Case studies of Buildings, Sites, Precincts, Stretches etc. of Historic and Cultural
- Significance.
- Report on Heritage/Conservation area

REFERENCES :-

1. Cohen, N., "Urban Conservation", MIT Press. 1999
2. Jokilehto, J., "History of Architectural Conservation (Conservation and Museology)", Routledge. 2002
3. Fielden, B. "Conservation of Historic Buildings", Architectural Press. 2003
4. Orbasli, A., "Architectural Conservation: Principles and Practice", Wiley Blackwell. 2007
5. Croci, J., "The Conservation and Structural Restoration of Architecture Heritage: Theory and Practice", Computational Mechanics Publications. 2008
6. Aygen, Z., "International Heritage and Historic Building Conservation: Saving the World's Past", Routledge. 2012

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Urban Finance (Program Elective)	**3**	**1**	**2**	**0**	**0**

PREREQUISITE

None

COURSE OBJECTIVE(s)

- To develop an understanding of financial resource mobilization for urban infrastructure and services structures.

COURSE OUTCOMES

1. Understanding of the basic concept and analytical framework.
2. Understanding of budgetary financing mechanism in India.
3. Understanding of Land based financing instruments.
4. Understanding of channels of finance flow.

COURSE ASSESSMENT

The Course Assessment (culminating to the final grade), will be made up of the following three components;

S. No.	Component	Weightage
a)	CWS	30%
b)	MTE	30%
c)	ETE	40%

COURSE CONTENTS

MODULE I –Cities and National Economy, urban productivity, Institutional arrangements for resource mobilization. Urban Local bodies and Development Authorities, Analytical framework for urban finance.

MODULE II- Revenue and Expenditure Assignments of ULBs. Obligatory and Discretionary Functions of ULB. Capital receipts, Taxes, User charges, Fees and Fines, Intergovernmental Fiscal Transfer mechanism.

MODULE III- Resource mobilization through Land based financing instruments. Land Acquisition, Volarization, Impact Fee, Development Charges, urban assessment, etc.

MODULE IV- Channels of Finance flow, International/Multilateral/Bilateral Lending institutions, Domestic Finance companies, financing intermediaries, Market mechanism.

Exercises:

Assignments and Presentations based on the topics selected from course contents.

REFERENCES

1. Urban Public Finance, Roy& Bhel
2. Municipal Finance; UNCHS
3. Working papers from NIUA, ASCI, NIPFP

DETAILS OF THE COURSE

Course Code	Course Title	Credits	Lecture	Tutorial	Practical	Studio
	Architectural Journalism (Program Elective)	3	1	2	0	0

PREREQUISITE

None

COURSE OBJECTIVE(s)

- To familiarize and equip the students with basic knowledge of journalism.
- To create awareness and skills about various intellectual gatherings and business presentation skills, advertising, journalism for media and architectural journalism.

COURSE OUTCOMES

1. Students will gain understanding of Contemporary Architectural Journalism.
2. The course covers fundamentals of writing, photography, explaining of various strategies and design narratives.

COURSE ASSESSMENT

The Course Assessment (culminating to the final grade), will be made up of the following three components;

S. No.	Component	Weightage
a)	CWS	30%
b)	MTE	20%
c)	ETE	50%

COURSE CONTENTS

MODULE I – Introduction

Introduction to journalism, key concepts and objectives of Journalism – Specialized journalism: with emphasis on architectural journalism - Journalism skills: research, reporting, writing, editing, photography, columnists, public relationships, criticism. Issues such as copyright, plagiarism, public art policy, the arts and urban redevelopment.

MODULE II- Technologies in Journals

Business presentation, Illustration techniques - preparing flow charts, tables & diagrams, Books and magazines, film and television posters, coverage etc., reprographic techniques, Advertising - Typography, artwork, Multimedia - 2D digital graphic design techniques, 3D digital modeling techniques, Packaging – surface decoration such as print, Printmaking – photo screen-printing and etching, scanning and laser printing.

MODULE III- Contemporary Architectural Journalism

Role of the Editor - Editing of Articles, Features and other stories - Editing for online newspaper and magazines - Text preparation, Mode of presentation, Standards and Guidelines for documentation, Code of ethics, Basic knowledge on Press laws, Press Council of India, Multimedia/online journalism and digital developments.

MODULE IV- Architectural Photography

Introduction to architectural photography and role of the photographic image in the global world – basic instruction in Photojournalism Equipment: cameras and lenses – techniques: film speed, exposure measurement, gray scale– photo- finishing and editing digital images. Perspectives:

Single Point, Two- Point, Three- Point and methods of correcting distortions – Lighting: External and Interior.

MODULE V- 3D Presentations

Movie making Flash movies, animation graphics, and walkthroughs.

REFERENCES

1. Edward Jay Friedlander and John Lee, "Feature Writing for Newspapers and Magazines", 4th edition, Longman, 2000.
2. Fuller, David & Waugh, Patricia eds., "The Arts and Sciences of Criticism", Oxford: Oxford University Press, 1999
3. Foust, James, Online Journalism,"Principles and Practices of News for the Web", Holcomb Hathaway Publishers, Scottsdale, AZ, 2005
4. M. Harris, "Professional Architectural Photography", Focal Press, 2001.
5. M. Harris, "Professional Interior Photography", Focal Press, 2002 68
6. Musa, Majd, Al-Asad, Mohammad (2007), Architectural Criticism and Journalism, Umberto Allemandi & Co
7. Ward, S. J. A. "Philosophical Foundations of Global Journalism Ethics." Journal of Mass Media Ethics., Vol. 20, No. 1, 3-21, 2005
8. M .Heinrich, "Basics Architectural photography", BikhauserVerlag AG, 2008. 9. Gerry Kopelow, "Architectural Photography: the professional way", 2007