

# Master of Architecture (Architectural Conservation)

Course Structure and Detailed Syllabus for  
Two-Year Masters Degree Programme in Architecture

***Effective from the Academic Year 2024-25 onwards***

*(As Approved by Senate in its 17<sup>th</sup> Meeting held on 27.05.2024)*



**योजना तथा वास्तुकला विद्यालय, विजयवाडा**  
School of Planning and Architecture, Vijayawada  
An Institute of National Importance, MHRD, Govt. of INDIA.



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**Introduction to**  
**Master of Architecture (Architectural conservation)**

Traditional knowledge systems embedded in the architectural heritage of India is a rich examples of sustainable living ethos. Protection and conservation of its vast and diverse heritage has been identified as constitutional obligation as well. Master of Architecture (Architectural Conservation), abbreviated as M.Arch (AC), is a master's degree course in Architecture offered by School of Planning and Architecture, Vijayawada. It offers specialisation in Architectural Conservation.

The key objective of the course is to develop a deeper understanding of this cultural phenomenon and its association with integral development of the settlements. A comprehensive and integrated conservation management and to equip the students with adequate skills required to comprehend various aspects that are the determinants of the heritage in all the contexts. The course is designed to provide necessary exposure to various approaches in understanding, assessment and make necessary interventions of heritage components ranging from archaeological sites to urban settings.

SPAV's Architectural Conservation – Post Graduation programme is one of its kind in the southern part of the country. The course curriculum is based upon the changing realities of heritage conservation in India and the world. As a student here, one becomes part of a dynamic learning environment with accomplished faculty of the institute as well as expert from leading institutions and industry in conservation field. SPAV aims to create an environment to make this course more learning centric rather than curriculum centric by promoting social engagement, right-based approaches to management of heritage, fostering critical thinking and integrating conservation experiences inside and outside the studios.

## The Programme

The programme is divided into five modules namely: **Module**

### **Critical approaches**

Focuses on different understanding of heritage components by the parallel and allied fields based upon distinct methodologies. It builds a foundation of understanding archaeological, social and anthropological etc. as basis to develop a comprehensive architectural heritage education. It also explores and addresses the changing paradigms in heritage ranging from values to economics

### **Diagnostic tools**

Focuses on information collection to management systems. The tools developed would be specific to observation, recording, representation that would be key for assessment with a scientific basis for heritage management. State of art technological tools would be introduced for heritage documentation.

### **Heritage assessment**

Focuses on various assessment both qualitatively and quantification of heritage components in various contexts and scales. The objective of this module is to develop scientific basis for interventions.

### **Theory and Principles**

Focuses on the administrative, political and legal frameworks under which the conservation works are undertaken. It forms a philosophical base on which the interventions are decided.

### **Studios**

**First Hand Experience on various scales of Heritage contexts/projects.**

The syllabus is designed so as to develop strong communication, interpersonal, advocacy and analytical skills of the student. The subject faculty members are encouraged to assess the students in a progressive manner throughout the semester through seminars, group/individual presentations/Assignments, written exams, report submissions, viva voce, etc.



**First Semester**

Code	Course Titles	Distribution of Periods per week			Total Periods Per Week	Credits
		L	T	S/P		
MACO111	Conservation Studio-I	3	0	12	15	15
MACO112	Introduction to Conservation; History, Principles and Practice	3	0	0	3	3
MACO113	History, Theory and Criticism in Heritage Studies	2	0	0	2	2
MACO114	Methods of Heritage Research, Documentation and Interpretation	2	0	1	3	3
MACO115	Conservation Methods and Materials - I	2	2	0	4	4
MACO116	Skill enhancement for Conservation	2	0	1	3	3
	<b>TOTAL:</b>	<b>14</b>	<b>2</b>	<b>14</b>	<b>30</b>	<b>30</b>

**Second Semester**

Code	Course Titles	Distribution of Periods per week			Total Periods Per Week	Credits
		L	T	S/P		
MACO121	Conservation Studio-II	3	0	12	15	15
MACO122	Conservation Approaches & Philosophies	3	0	0	3	3
MACO123	Knowledge Systems in Heritage Studies	2	0	0	2	2
MACO124	Research Methods & Report Writing in Heritage Studies	2	1	0	3	3
MACO125	Conservation Methods and Materials – II; Conservation Lab	2	1	1	4	4
MACO126	Conservation of Cultural Landscapes, Historic Towns and Cities	3	0	0	3	3
	<b>TOTAL:</b>	<b>15</b>	<b>2</b>	<b>13</b>	<b>30</b>	<b>30</b>

**Third Semester**

Code	Course Titles	Distribution of Periods per week			Total Periods Per Week	Credits
		L	T	S/P		
MACO211	Conservation Studio-III	3	0	12	15	15
MACO212	New Paradigms in Conservation	3	1	0	4	4
MACO213	Heritage and Jurisprudence	3	0	0	3	3
MACO214	Conservation Economics and Finance	2	1	0	3	3
MACO2110	Elective: I Heritage Impact Assessment	2	0	1	3	3
MACO2111	Elective: II Disaster Management of Cultural Resources					
MACO2112	Elective: III Decolonising Museums and Heritage					
MACO217	Summer Internship (6-8 Weeks)	0	0	0	0	2
	<b>TOTAL:</b>	<b>13</b>	<b>2</b>	<b>13</b>	<b>28</b>	<b>30</b>

**Fourth Semester**

Code	Course Titles	Distribution of Periods per week			Total Periods Per Week	Credits
		L	T	S/P		
MACO221	Conservation Thesis	6	6	12	24	24
MACO222	Heritage Management Seminar	2	1	0	3	3
MACO223	Interventions at Historic Buildings	2	0	1	3	3
	<b>TOTAL:</b>	<b>10</b>	<b>7</b>	<b>13</b>	<b>30</b>	<b>30</b>

MACO214 is to be read as:

M = Masters of; ACO= Architectural Conservation; 2 (1<sup>st</sup> digit) = 2<sup>nd</sup> Year; 1 (2<sup>nd</sup> digit) = 1<sup>st</sup> Semester; 4 (3<sup>rd</sup> digit - 1 to 9) = 4<sup>th</sup> Subject

MACO2111 is to be read as:

M = Masters of; ACO= Architectural Conservation; 2 (1<sup>st</sup> digit) = 2<sup>nd</sup> Year; 2 (2<sup>nd</sup> digit) = 2<sup>nd</sup> Semester; 12 (3<sup>rd</sup> digit if 10 Onwards) = 2<sup>nd</sup> Elective

*Note: Credits for each subject are the same as the number of lecture / practical hours per week, whichever is higher.*

# Detailed Syllabus for

# Master of Architecture (Architectural Conservation)

**FIRST SEMESTER**

MACO111 - Conservation Studio-I	Subject Category	SC
	Number of Credits	15
	Lecture Periods per Week	3
	Tutorials per week	-
	Studio/Lab/Workshop/Practical's	12
	Total Periods per Week	15

**Objectives:**

- The objective of the first semester studio is to introduce the students to the fundamentals of heritage sites through various training modules and through a studio exercise with a focus on documentation of heritage.

**Basics/Foundation (Three Week):** Orientation to the subject of Architectural Conservation. Fundamentals of site, context, historicity.

**Observation & Enquiry (Two Week)** Training to observe and making enquiry of a heritage building / monument. Introduction to the concept of archival research. Exercises to inculcate critical thinking.

**Fieldwork & Measure Drawing (Two Week)** Exercise of measure drawing a small-scale structure. Focus on manual documentation techniques and translating site sketches/drawings to presentation drawings.

**Understanding a heritage building (Five Week)** Developing an understanding regarding varied aspects of a heritage building - building types and typologies, materials, construction systems, architectural influences etc.

**Associated Intangible Aspects (Three Week)** Deciphering the intangible aspects of heritage sites; people, communities, culture and practices.

**\*Site Visit and Documentation Project (Ten Days):** Detailed documentation of the identified historic heritage building/site by studying the physical, socio-economic, environmental and governance aspects. Understanding its setting, significance and determinants that shaped the building. Special lectures/onsite demonstrations on application of different tools shall be conducted by subject experts/Local resource persons.

**Deliverables shall include drawings and report. Progressive presentations shall be made for reviews at various stages.**

**Total: 225 Periods**

**Outcomes:**

Students finishing this course will be able to:  
Study and understand historic heritage buildings and sites.

*\* The criteria for the selection of the site/building for the documentation is significant historic heritage/ material culture. Distinct layers of heritage components shall be identifiable with a potential case for conservation. Accordingly, two weeks itinerary shall be prepared to explore hands on experience with the help of local resources/experts on various tools and techniques in documentation, investigations, and assessment.*



MACO112 - Introduction to Conservation; History, Principles and Practice	<b>Subject Category</b>	TC
	<b>Number of Credits</b>	3
	<b>Lecture Periods per Week</b>	3
	<b>Tutorial Periods per Week</b>	-
	<b>Studio/Lab/Workshop/Practical's</b>	-
	<b>Total Periods per Week</b>	3

**Objective:**

- The objective is to introduce conservation movements in India and Abroad and to examine various precursors and their relevance with the context. It critically examines various international standards, indigenous practices and relative case studies.

**Unit I Introduction-History, origins, theory and principles of Architectural Conservation**

9

Broad narrative-(Western Context)Origin and early phase of Conservation, European Movement, Major thinkers/pioneers of Conservation, fundamental principles and philosophy-its evolution, Idea of restoration and preservation as a part of European culture, recognized cultural resources,(Indian Context) Origin and early phase of conservation, scholarly publications, records, cartographs, archaeological excavations, formulation of Asiatic Society of Bengal, museology, conservation of antiquities and artefacts, Practice of formal Conservation initiated - set up ASI, Major contributors/pioneers ,ideologies and philosophies, concept and practice of conservation, Acts and laws pertaining to heritage.

**Unit II Global context and levels of Management for Conservation**

12

Key roles of International, National, Private Bodies, conventions, recommendations, charters from Venice to Mexico, (Special focus on Indian Context.)

**Unit III Vocabulary to understand Architectural Conservation**

9

Definition, terminologies in conservation; historicity, values, authenticity, preservation, restoration, transformation, conservation etc. including traditional vocabularies for conservation.

**Unit IV Legislative framework for Conservation in India**

6

Article 49 of Constitution of India, understanding the works and systems of ASI, State Governments and Private organizations dealing with conservation, UNESCO ratification, Acts

**Unit V Practices of Architectural Conservation in Contemporary India**

9

Present context in Heritage. Assessing architectural character- the concept of *Jeernodhara*, *Kumbhabhishekam*. Craft & conservation – intangible heritage.

**Total: 45 Periods**

**Outcomes**

Students finishing this course will be able to:

Understanding the needs of heritage conservation and development towards a sustainable future.

**References:**

- India, A. S. O., & Marshall, J. H. (1923, January 1). Conservation Manual.
- Evans, N. L. (2019, July 25). An Introduction to Architectural Conservation. Routledge.
- Jokilehto, J. (2017, October 20). A History of Architectural Conservation. Routledge.
- Biswas, S. S. (1999, January 1). Protecting the Cultural Heritage.
- Richmond and Bracker, eds. (2009, Aug 8) *Conservation: Principles, Dilemmas, and Uncomfortable Truths*, Oxford.
- Cumming, J. (2006). Revealing India's Past. Hesperides Press.
- Feilden, B. (2003). Conservation of Historic Buildings (3rd ed.). Routledge. <https://doi.org/10.4324/9780080502915>
- Orbasli, A. (2008). Architectural conservation: Principles and practice. Printdisabled; Internetarchivebooks.



MACO113 - History, Theory and Criticism in Heritage Studies	<b>Subject Category</b>	TC
	<b>Number of Credits</b>	2
	<b>Lecture Periods per Week</b>	2
	<b>Tutorial Periods per Week</b>	-
	<b>Studio/Lab/Workshop/Practical's</b>	-
	<b>Total Periods per Week</b>	2

**Objective:**

- The objective is to help students develop critical thinking skills intended for greater understanding of architectural history. It emphasizes on analysis and interpretation of various sources, and encourages students to adopt new ways of seeing the history of architecture.

**Unit I Historiography 6**

Ways of Understanding political and cultural history. Historiography, writers of history, of art and architecture and their interpretations. Types of Historiographical writings

**Unit II Development of architectural history as a subject 6**

Historic architecture, oral history and living traditions as a source of knowledge; from 'stylistic' analysis to knowledge systems approach. Introduction to architectural history, theory, and criticism. Development of architectural history as a subject

**Unit III Introduction to National and International Charters 6**

Understanding linkage between philosophy, history, theory and practice in architecture and conservation. Relationship between idea and interpretation.

**Unit IV Analysis of Architectural Idioms 6**

Analysis of architectural idioms. Hybrid architecture and building of no idiom

**Unit V Appreciation and Criticism 6**

Difference between review, appreciation and criticism. Relationship between criticism and practice. Techniques of appreciation and criticism. Appreciation and criticism as a tool to provide feedback. Writing appreciation and criticism.

**Total: 30 Periods**

**Outcomes**

Students finishing this course will be able to:

Critically evaluate various sources of architectural history and theory to develop an appropriate framework to rediscover the regional architectural heritage

**References:**

- Basu, P. P., & Chanda, I. (2011). Locating Cultural Change. SAGE Publications Pvt.
- Urban Culture: Critical Concepts in Literary and Cultural Studies. (2004). United Kingdom: Routledge.
- Arnold, D., Ergut, E. A., & Ozkaya, B. T. (2006). Rethinking Architectural Historiography. Routledge.
- Ockman, J. (1985). Architecture, Criticism, Ideology.
- Wallenstein, S. O. (2016). Architecture, Critique, Ideology: Writings on Architecture and Theory. Axl Books.
- Heller, G. N. (1999). Book Review: History in Crisis? Recent Directions in Historiography. The Bulletin of Historical Research in Music Education, 20(3), 209-212.
- Wood, G. S. (2009). The Purpose of the Past, Reflections on the Uses of History. Penguin.
- Breisach, E. (2008). Historiography: Ancient, Medieval, and Modern. University of Chicago Press.



MACO114 - Methods of Heritage Research, Documentation and Interpretation	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	-
	Studio/Lab/Workshop/Practical's	1
	Total Periods per Week	3

**Objective:**

- The objective is to expose the students to various modes and techniques in organizing data including manual documentation/inspection recording systems.

**Unit I Data collection and recording for heritage/historic sites- Methods and Principles**

9

Difference between data and information. Ways of collecting information- historical documents, photographs, maps, and other records related to the heritage site. Understanding and need for documenting different types of heritage components. Information processing in heritage areas, Open-source geospatial platform for heritage inventories: the Arches Project, Use of GIS for heritage resource management in India (Delhi, Bengal, HRIDAYA, SMART Cities) & Abroad.

**Unit II Manual Documentation Techniques**

9

Introduction to various methods and principles of documentation with special focus on manual surveying and documentation techniques. Understanding of scales and measurements, types of instruments and their uses specific to heritage sites. Standards of documentation. Methods of demography and population studies – population projections, introduction to Census data and sale surveys.

**Unit III Application and use of tools**

9

Appropriate documentation techniques of various scales and components of cultural resources. Tools used for documentation and recording-inventory, survey questionnaires etc. Errors in measurement and corrections, recording field notes and obstacles in surveying. Methods of organizing site data. Application of documentation techniques.

**Unit IV Photogrammetry**

9

Fundamentals of Photogrammetry, need and applicability in documentation of heritage sites, Principles; Camera position, focal length, image orientation, relative camera positions, Length and angle units, required software and data. Photogrammetry data analysis for visual exploration, Use of Aerial Mapping and Photogrammetry techniques analysis, synthesis and graphic presentation of Aerial mapping data regarding heritage resource management in historic urban and cultural landscapes

**Unit V GIS and its applications in Heritage Studies**

9

Introduction to DEM, Terrain Mapping and Analysis. Basic elements of GIS modelling, Heritage applications of 3D Modelling Tools – Geocoding & Dynamic Segmentation for Data management, data display, data query and data analysis. Heritage applications of 3D Modelling Tools, Introduction to LiDAR, Remote sensing Techniques.

**Total: 45 Periods****Outcomes**

Students finishing this course will be able to:

Learn various methods of data collection using various tools and techniques.

**References:**

- Linder, W. (2009). Digital photogrammetry (Vol. 1). Berlin/Heidelberg, Germany: Springer.
- Arayici, Y., Counsell, J., Mahdjoubi, L., Nagy, G. A., Hawas, S., & Dweidar, K. (Eds.). (2017). Heritage building information modelling. Taylor & Francis.
- Swallow, P., Dallas, R., Jackson, S., & Watt, D. (2016). Measurement and recording of historic buildings. Routledge.
- Cooper, N. (1990). Guide to recording historic buildings. Guildford (United Kingdom): Butterworth Architecture.
- Bold, J. (2009). Guidance on inventory and documentation of the cultural heritage. Council of Europe.
- Terras, M. (2008). Digital Heritage: Applying Digital Imaging to Cultural Heritage. Lindsay MacDonald (ed.).
- Hemsley, J., Cappellini, V., & Stanke, G. (Eds.). (2017). Digital applications for cultural and heritage institutions. Routledge.
- Krygier, J., & Wood, D. (2016). Making maps: a visual guide to map design for GIS. Guilford Publications.
- Agor, R., (2002, 1 January). Advanced Surveying, A text book, Khanna Publishers.
- Watt, D., Swallow P., (1996). Surveying Historic Buildings, Donhead.
- UK, I. (1990). Guide to recording historic buildings.
- Sykes, M. H. (1984). Manual on systems of inventorying immovable cultural property.
- Lee, E. S., & Forthofer, R. N. (2005). Analyzing complex survey data. Sage Publications.
- Krygier, J., & Wood, D. (2016). Making maps: a visual guide to map design for GIS. Guilford Publications.
- Datta, S., & Beynon, D. (2016). Digital archetypes: adaptations of early temple architecture in South and Southeast Asia. Routledge.



MACO115 - Conservation Methods and Materials - I	<b>Subject Category</b>	TC
	<b>Number of Credits</b>	4
	<b>Lecture Periods per Week</b>	2
	<b>Tutorial Periods per Week</b>	2
	<b>Studio/Lab/Workshop/Practical's</b>	-
	<b>Total Periods per Week</b>	4

**Objective:**

- The objective is to understand the traditional materials, their behaviour and changes due to various atmospheric elements.

**Unit I Introduction to historic building materials 12**

Introduction to historic building materials: location, formation, physical and chemical properties and sourcing of historic building materials. Characterization of materials and compatibility of its usage with modern materials. Relationship between various historic building materials and historic buildings.

**Unit II Maintenance requirements of building materials 12**

Maintenance requirements of building materials. Diagnosis and assessment of defects in building materials by atmospheric elements. Remedial measures. Strengthening of building materials. New building materials.

**Unit III Preparation of conservation specifications 12**

Preparation of conservation specifications. Laboratory testing of materials for material and structural analysis to support sensitive interventions.

**Unit IV Traditional and Historic Building Materials 12**

Introduction to traditional and historic building materials and construction vocabularies in different cultural regions of India. Case studies of the same.

**Unit V Identification and diagnosis of defects 12**

Identification of materials and structural building system typologies Inspection, condition assessment and diagnosis of material and structural defects.

**Total: 60 Periods**

**Outcomes**

Students finishing this course will be able to:

Acquire knowledge of traditional materials and their behaviour and workability.

**References:**

- Durbin, L. (2012). Architectural Tiles: conservation and restoration. Routledge.
- Kumar, A. V. (2001). Conservation of Building Stones.
- Daniels, K. (1998). Low-tech, light-tech, high-tech: Building in the information age
- Cowper, A. D. (1998). Lime and Lime Mortars. 1927. Reprinted edition. Dorset, England: Donhead Publishing.
- Forsyth, M. (Ed.). (2008). Materials & skills for historic building conservation. Blackwell Pub.
- Rai, G. S., Desarkar, P., Center, L., Initiative, C. R. C., & Trust, I. U. (2006). *What are Lime Mortars*
- Bais, S. (2007). Why Use Lime, Conservation briefs. Intach UK Trust



MACO116 – Skill Enhancement for Conservation	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	-
	Studio/Lab/Workshop/Practical's	1
	Total Periods per Week	3

**Objective:**

- The objective is to hone fundamental communication and representation skills to effectively communicate ideas and challenges.

**Unit I Introduction to techniques of Communication****12**

Introduction to different ways and effective techniques used for graphic, written and verbal communication in different stages and aspects in the field of heritage conservation. Learning the aesthetic, technical and conceptual techniques which are essential for the creative outcome, enabling students with skills and tools to solve complex problems.

**Unit II Drawing for Understanding****9**

Drawings as efficient and powerful analytical tools. Introduction to the various types of interpretative illustration that will enhance the understanding of historic buildings and cost-effective methods of making them.

**Unit III Reading and Making Maps****9**

Map making through the ages, evolution of representation of urban form. Application of Geo-Spatial Data and GIS tools with integration of cartography and historic maps to generate base maps, image analysis and exploratory data analysis for visual exploration, analysis, synthesis and graphic presentation of geospatial data regarding heritage resources.

**Unit IV Graphical Representation Tools****6**

Experimenting with effective representation of ideas through the creative use of drafting softwares. Communicating documentation including technical skills and competence.

**Unit V Report Writing & Verbal Communication****9**

Verbal Communication- through Extempore and debates. Written Skills- Report writing in the field of conservation. Write persuasive arguments probably stemming out of the Studio exercise, well-structured text and express critical standpoints.

**Total: 45 Periods****Outcomes**

Students finishing this course will be able to:

Effectively communicate ideas and challenges in the field of conservation.

**References:**

- Bruckle, I. (n.d.). The Development of Skill Knowledge in Conservation.
- Cameron, C. (n.d.). Evolving Heritage Conservation Practice in the 21st Century.
- Caple, C. (n.d.). Conserving Skills: Judgement, Method, Decision Making.
- Catherine Croft, S. M. (n.d.). Concrete: Case Studies in Conservation Practice (Conserving Modern Heritage).
- Forsyth, M. (n.d.). Material and Skills for Historic Building Conservation.
- Jacobson, S. K. (n.d.). Conservation Skills for Conservation Professionals.

**SECOND SEMESTER**

MACO121 - Conservation Studio-II	<b>Subject Category</b>	<b>SC</b>
	<b>Number of Credits</b>	<b>15</b>
	<b>Lecture Periods per Week</b>	<b>3</b>
	<b>Tutorial Periods per Week</b>	<b>-</b>
	<b>Studio/Lab/Workshop/Practical's</b>	<b>12</b>
	<b>Total Periods per Week</b>	<b>15</b>

**Objective:**

- The objective of the second semester studio is to introduce the students to the problems and issues confronting historic heritage buildings and sites through an interdisciplinary approach, achieved by wherever possible, through a studio exercise.

**Archival Research (Three weeks):** Search and review of relevant literature and sources related to heritage building/monument, period, style, and historicity.

**\*Site Visit and Documentation (Two weeks):** Detailed documentation of the identified historic heritage building/site by studying the physical, socio-economic, environmental and governance aspects. Understanding its setting, significance and determinants that shaped the building. Special lectures/onsite demonstrations shall be conducted by subject experts/Local resource persons.

**Analysis (Five weeks):** Analysis and Identification of the important issues with respect to material, construction, style, morphological aspects, transformations. Identifying various threats due to natural or man-made causes of defects/deteriorations and various degrees of its condition assessment.

**Conservation Proposals (Five weeks):** Based upon identified issues the suitable conservation proposals for various aspects of protection to historic heritage building/site.

Deliverables shall include drawings and report. Progressive presentations shall be made for reviews at various stages.

**Total: 225 Periods**

**Outcomes**

Students finishing this course will be able to:

Study and find solutions to problem and issues confronting historic heritage buildings and sites.

*\*The criteria for the selection of the site/building for the documentation is significant historic heritage/material culture. Distinct layers of heritage components shall be identifiable with a potential case for conservation. Accordingly, two weeks itinerary shall be prepared to explore hands on experience with the help of local resources/experts on various tools and techniques in documentation, investigations, assessment, and development of conservation strategies.*

	<b>Subject Category</b>	<b>TC</b>
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MACO122 - Conservation Approaches & Philosophies	Number of Credits	3
	Lecture Periods per Week	3
	Tutorial Periods per Week	-
	Studio/Lab/Workshop/Practical's	-
	Total Periods per Week	3

**Objective:**

- The objective is to understand the approaches by other discipline like archaeology, anthropology, history etc. to critically derive a scientific approach towards developing methods in architectural conservation.

**Unit I Core Disciplines & Perspectives****9**

Introduction to various core disciplines including Social Sciences (Anthropology, Sociology, History, Art- History, etc.), Archaeology and Planning. Role of archaeologist and planners in heritage conservation. Research methods and perspectives in various core and allied disciplines.

**Unit II Inter-disciplinary Techniques****9**

Importance of core disciplines in holistic understanding of conservation. Impacts of core disciplines on Conservation. Urban Planning objectives and introduction to urban planning terminologies, Type of plans and plan hierarchies, Integration of conservation in Master plans, Zonal plans and Local area plans, URDPI Guidelines, Understanding planning provisions with specific focus on heritage. Region as comprehensive physical planning unit: concepts, criteria for identification, types: planning region, resource region, cultural region etc. The theory of regional settlement patterns, urban – rural continuum and changing relationships. Delineation of city regions: Greater London Plan, NCR, District planning processes in India.

**Unit III Value Assessment****9**

Introduction to Value Assessment in conservation. Intrinsic and extrinsic values of architectural heritage and how these impact various interventions in their context. Methods and tools of Value Assessment by allied disciplines. Different Approaches and Methodologies to study Culture.

**Unit IV Historic urban landscapes approach****9**

Concept of urban sustainable development, Urban and territorial management based on the proposition of integrated conservation Historic urban landscapes approach: Urban conservation as an interdisciplinary and multidisciplinary process. History of integrated territorial urban conservation approaches in the world with select examples: York, Chester, Bath, Bologna, Ferrara, Cairo.

**Unit V Integrated Methodology****9**

Evolving holistic and integrated habits of thought by understanding architectural conservation theory, its evolution, direction, current debates, and possible future trajectory. Approaches to integrated conservation in India with select examples explaining urban conservation tools and methods: Inner city regeneration, adaptive reuse, infill development etc. Institutional framework for urban conservation and renewal strategies in India.

**Total: 45 Periods****Outcomes**

Students finishing this course will be able to:

Develop a multidisciplinary approach towards developing various conservation frameworks



**References:**

- Feilden, B. M., & Jokilehto, J. (1998). Management guidelines for World Cultural Heritage sites
- Thakur, N., Kawathekar, V., Chandra, S., & Kodasi, S. (2002). Campaign Authenticity: a series of workshops, SPA Delhi.
- Lemaire, R., & Stovel, H. (1996). The Nara Document on Authenticity: Nara Conference on Authenticity in Relation to the World Heritage Convention.
- ICOMOS, A. (2013). The Burra Charter: The Australia ICOMOS charter for places of cultural significance 2013. Australia ICOMOS Incorporated.
- Chalana, M., & Krishna, A. (Eds.). (2020). Heritage Conservation in Postcolonial India: Approaches and Challenges.
- Cleere, H. (Ed.). (1984). Approaches to the archaeological heritage. Cambridge University Press.
- Glendinning, M. (2013). The conservation movement: a history of architectural preservation: antiquity to modernity. Routledge.
- Vit-Suzan, I. (2016). Architectural Heritage Revisited: A Holistic Engagement of its Tangible and Intangible Constituents. Routledge.





MACO123 - Knowledge Systems in Heritage Studies	Subject Category	TC
	Number of Credits	2
	Lecture Periods per Week	2
	Tutorial Periods per Week	-
	Studio/Lab/Workshop/Practical's	-
	Total Periods per Week	2

**Objective:**

- The objective is to explore the cultural knowledge systems of different societies and to use this traditional and architectural knowledge system for conservation.

**Unit I Formal and Informal Knowledge System****6**

Difference between formal education and traditional knowledge. Prevailing knowledge within the society transferred through generations including those like prediction of rainfall, language, preserving and storage of food materials etc.

**Unit II Intellectual Property and Traditional Knowledge****6**

Meaning and Scope of traditional Knowledge, Interface between IP and traditional Knowledge, Need and Significance of protection, International instruments on Traditional Knowledge, Recognition and Documentation of Traditional Knowledge, Databases.

**Unit III Architectural Traditional knowledge****6**

Architectural Knowledge and its connection to Indigenous Architecture. Historic City, a product of people, place and time. Historicity and development. Architectural Knowledge System as a tool for Conservation

**Unit IV Traditional Architecture and its associative crafts****6**

Traditional Architecture and its associative crafts. Knowledge System approach and its applicability in understanding various forms of architecture.

**Unit V Intellectual Property****6**

Understanding various perception and interpretation of heritage. Origin and Development of IPR, Historical and theoretical basis for protection of IPR, Analysing and understanding the Interpretation of IP laws, Need for Protecting IP.

**Total: 30 Periods****Outcomes**

Students finishing this course will be able to:

Apply the knowledge of various indigenous systems evolved over a period of time for conservation.

**References:**

- Emery, A. R. (2000). Integrating indigenous knowledge in project planning and implementation. International Labour Organization.
- Battiste, M. (1998). Enabling the autumn seed: Toward a decolonized approach to Aboriginal knowledge, language, and education. *Canadian Journal of Native Education*, 22(1).
- Johnston, D., & Linden, J. S. (2006). Connecting people to place: The power and relevance of origin stories. JS Linden. The Ipperwash Inquiry. Volume Two. [www.law.utoronto.ca/documents/lectures/religion-johnston-0611.pdf](http://www.law.utoronto.ca/documents/lectures/religion-johnston-0611.pdf).
- IPO, W. (2001). Intellectual Property and Traditional Knowledge, Booklet No. 2. New York: W IPO, 2007: 12, 18.
- Wijesuriya, G., Court, S. (2020). Traditional Knowledge Systems and the conservation and management of Asia's heritage, ICCROM-CHA Report.
- Norway, I. C. O. M. O. S. (2014, April). World Heritage and Rights-Based Approaches. In Report From Workshop In Oslo (pp. 1-3).

MACO124 – Research Methods & Report Writing in Heritage Studies	<b>Subject Category</b>	<b>TC</b>
	<b>Number of Credits</b>	<b>3</b>
	<b>Lecture Periods per Week</b>	<b>2</b>
	<b>Tutorial Periods per Week</b>	<b>1</b>
	<b>Studio/Lab/Workshop/Practical's</b>	<b>-</b>
	<b>Total Periods per Week</b>	<b>3</b>

**Objective:**

- The course objective is to enable students to formulate appropriate research methodologies and theoretical frameworks relevant to pressing conservation issues in the Indian context.

**Unit I Research Methodology**

**9**

What is research? Research versus faith, research versus project, philosophical and theoretical basis; Research philosophies – positivistic, phenomenological, anthropological; Research terminology; Types of Research – exploratory, descriptive, analytical, predictive; Research approaches – quantitative/ qualitative/mixed, basic/ applied, deductive/ inductive.

**Unit II Research Methods**

**6**

Introduction to advanced research methods, structuring of complex research enquiries and development of hypotheses, required for good theoretical grounding and academic writing of a high standard.

**Unit III Writing a Research Paper/Dissertation/ Inspection report**

**30**

Strategic evaluation of relevance of heritage research to wider societal, environmental and developmental issues. Identification of significant areas of research related to emerging heritage conservation issues. Developing contextual background; Research design; Identification of research problem; Research questions; Formulation of hypothesis; Writing aims, objectives, scope and limitations; Review of relevant literature; Identification of suitable research methods/ techniques/ instruments; Data collection – questionnaires, sampling techniques, observation, interviews; Analysis - qualitative and quantitative analysis, data synthesis; Research outcome – research findings, summarizing Scientific methods for heritage research in the inter-disciplinary and cross-disciplinary environments of heritage conservation and management. Linking primary and secondary data and establishing connections between theory, research and practice in both the Indian and International context.

**Total: 45 Periods**

**Outcomes**

Individual and group guidance for writing a 3000-word research paper/ Dissertation/ Inspection report on identified research area. This research stage outcome could be published in the SPAV journal and other journals.

**References:**

- Punch, K. F. (2013). Introduction to social research: Quantitative and qualitative approaches. sage.
- Crotty, M. J. (1998). The foundations of social research: Meaning and perspective in the research process. The foundations of social research, 1-256.
- Daiute, C., & Lightfoot, C. (2003). Narrative Analysis: Studying the Development of Individuals in Society.
- Denzin, N. K. (2008). The landscape of qualitative research (Vol. 1). Sage.
- Groat, L. N., & Wang, D. (2013). Architectural research methods. John Wiley & Sons.
- Thomas, C. G. (2021). Research methodology and scientific writing. Thrissur: Springer.
- Waterton, E., & Watson, S. (Eds.). (2015). The Palgrave handbook of contemporary heritage research. Springer.

MACO125 - Conservation Methods and Materials – II; Conservation Lab	Subject Category	TC
	Number of Credits	4
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Studio/Lab/Workshop/Practical's	1
	Total Periods per Week	4

**Objective:**

- The objective of the course is the application of the theoretical understanding of historic building materials and structural systems performance to variations in different regional contexts in India. As an extension of the subject taught in the 1st semester, It will focus on historic building technologies, structural behaviour of buildings, deterioration processes and conservation interventions.

**Unit I Introduction to traditional and historic building materials 12**

Introduction to traditional and historic building materials and construction vocabularies in different cultural regions of India. Cultural region for more elaboration can be studied in the context of the site taken up in the Conservation studio-II.

**Unit II Spatial and functional assessment 12**

Identification of materials and structural building system typologies, Inspection, condition assessment and diagnosis of material and structural defects, Spatial and functional assessment of historic buildings

**Unit III Seismic Events 12**

Identification of resilient systems in regions prone to earthquakes and extreme nature events

**Unit IV Material & Structural Conservation 12**

Rescue and conservation measures for distressed buildings, Methods of retrofitting, strengthening and upgradation for continued or reuse, Case studies of successes and failures in similar contexts.

**Unit V Conservation Specifications 12**

Preparation of conservation specifications, Laboratory testing of materials for material and structural analysis to support sensitive interventions.

**Total: 60 Periods****Outcomes**

Students finishing this course will be able to:

Acquire knowledge of traditional materials and their behaviour and workability

**References:**

- Durbin, L. (2012). Architectural Tiles: conservation and restoration. Routledge.
- Kumar A. V. Indian National Trust for Art and Cultural Heritage & Indian Council of Conservation Institutes. (2001). Conservation of building stones (1st ed.). INTACH Indian Council of Conservation Institutes & Sundeep Prakashan.
- Cowper, A. D. (2017). Lime and lime mortars. Routledge.
- Forsyth, M. (Ed.). (2008). Materials & skills for historic building conservation. Blackwell Pub..
- Thomson, M. (2005). Properties of lime mortar. Structure Magazine, 26-29

MACO126 - Conservation of Cultural Landscapes, Historic Towns and Cities	<b>Subject Category</b>	TC
	<b>Number of Credits</b>	3
	<b>Lecture Periods per Week</b>	3
	<b>Tutorial Periods per Week</b>	-
	<b>Studio/Lab/Workshop/Practical's</b>	-
	<b>Total Periods per Week</b>	3

**Objective:**

- This course examines that how environments reflect the values, beliefs, and ideas of a particular culture. Also, to address concerns for protection of the natural environment and techniques for sustainable development of cultural landscapes within multidisciplinary planning processes.

**Unit I Concepts of Cultural Landscapes 6**

Eco philosophies and varying concepts of human relationship with nature in different cultural contexts, Methodology and parameters defining cultural landscapes and cultural regions.

**Unit II Bio-geographical zones in India 9**

Basic ecological understanding of bio-geographical zones in India and their manifestations into cultural regions and cultural forms. (Mountain, Coastal, desert, riverine, highlands etc.) Definition of cultural landscapes as understood in the international framework (UNESCO, World Heritage sites, US Parks service etc.) Environmental and ecological planning, Environmental Impact Assessment, Govt. of India Policies for environment (forests, wildlife, hill, biosphere, wetlands, wastelands, oceans etc.), Eco sensitive zones, Climate change imperatives.

**Unit III Cultural Landscapes Theory 12**

Understanding cultural landscape theories through examples (cultural geography, sacred landscapes, reading landscapes as texts, symbolism and meaning, local knowledge systems). Tools of analysis of natural landscapes and their interface with cultural contexts. Methods of defining, delineating and mapping cultural landscapes.

**Unit IV Interdisciplinary approaches 9**

Interdisciplinary approaches to management of cultural regions and landscapes: International and national case studies. Demarcating Cultural Landscapes through various parameters like political, physical, natural, linguistic boundaries etc. Methods of mapping the Cultural Landscapes. Analysis of Cultural Landscapes. Management and Conservation of Cultural Landscapes /Regions.

**Unit V Sustainable Development 9**

Strategies for sustainable development and conservation of cultural landscapes, integration into regional and district level developmental planning practices; Sustainable habitat programmes, Eco-sensitive zones.

**Total: 45 Periods**

**Outcomes**

Students finishing this course will be able to:

Acquire knowledge about uniqueness of sacred landscapes and its importance in Indian context.

**References:**

- Agnoletti, M. (2006). The Conservation of Cultural Landscapes. CABI.
- Singh, P. (2010). Archaeology of the Ganga Plain: cultural-historical dimensions.
- Oliver, P. (2007). Built to meet needs: Cultural issues in vernacular architecture. Routledge.



- Singh, R. P. (2011). Heritagescapes and Cultural Landscapes: An Appraisal; in, Singh, Rana PB (ed.) Heritagescapes and Cultural Landscapes. Planet Earth & Cultural Understanding Series, Pub. 6.
- SINHA, A. (2020). Cultural Landscapes of India: Imagined, Enacted, and Reclaimed. University of Pittsburgh Press.
- Rubenstein, James M. (2002). The cultural landscape: an introduction to human geography. Upper Saddle River, NJ: Prentice Hall,



### THIRD SEMESTER

MACO121 - Conservation Studio-III	<b>Subject Category</b>	<b>SC</b>
	<b>Number of Credits</b>	<b>15</b>
	<b>Lecture Periods per Week</b>	<b>3</b>
	<b>Tutorial Periods per Week</b>	<b>-</b>
	<b>Studio/Lab/Workshop/Practical's</b>	<b>12</b>
	<b>Total Periods per Week</b>	<b>15</b>

**Objective:**

- The objective of the third semester studio is to introduce the students to a historic settlement/region; to understand the historic layering of the city/region and its values and meaning for the community; the role of urban systems and their inter-relational dynamics which give historic cities a distinctive and legible form; the agents and patterns of transformation. It provides an opportunity to apply the theories, principles and techniques of conservation introduced in the first two semesters.

**Archival Research (Three weeks):** Search and review of relevant literature and sources related to Historic town/settlement, region, period, style, and historicity.

**\*Site Visit and Documentation (Two weeks):** Detailed documentation of the identified historic settlement/city/region by studying the physical, socio-economic, environmental and governance aspects. Understanding its setting, significance and determinants that shaped the building.

**Analysis (Five weeks):** Analysis and Identification of the important issues with respect to material, construction, style, morphological aspects, transformations. Identifying various threats due to natural or man-made causes of defects/deteriorations and various degrees of its condition assessment at city and region level.

**Conservation Proposals (Six weeks):** Based upon identified issues the students have to give suitable conservation proposals for various aspects by applying theories, principles and techniques of conservation.

**Deliverables shall include drawings and report. Progressive presentations shall be made for reviews at various stages.**

**Total: 225 Periods**

Students finishing this course will be able to:

Study and find solutions to problem and issues confronting historic core/urban areas.

\*The criteria for the selection of the site/settlements for the documentation is significant historic town/city, settlement, cultural region of phenomenon material culture. Distinct layers of heritage components shall be identifiable within identified site as a potential case for conservation. Accordingly, two weeks itinerary shall be prepared to explore hands on experience with the help of local resources/experts on various tools and techniques in documentation, investigations, assessment, and development of conservation strategies for the same.

MACO212 – New Paradigms in Conservation	<b>Subject Category</b>	TC
	<b>Number of Credits</b>	4
	<b>Lecture Periods per Week</b>	3
	<b>Tutorial Periods per Week</b>	1
	<b>Studio/Lab/Workshop/Practical's</b>	-
	<b>Total Periods per Week</b>	4

**Objective:**

- The objective of the course is to discuss the new paradigms, ideas and theories in conservation of heritage which take the subject beyond the realm of 'conventional' professional practice to areas such as community led sustainable conservation.

**Unit I Theoretical Foundations****9**

Re-examination and expansion of the field's theoretical foundations, as well as the development of a new set of tools for their adequate protection. Sociology and anthropology as fields of enquiry to include cultural role of built form and social constructs of space: Understand heritage as integral to society and culture. Making Historical Preservation Sustainable.

**Unit II Indigenous Heritage****12**

Heritage safety education in India. Assessment of local histories, values and implications on cultural studies; heritage as a continuum through time. Local and indigenous understanding of heritage to include the monumental and the vernacular built form, related crafts skills and crafts persons, practices, rituals, festivals etc.

**Unit III Stakeholders in Heritage Conservation****15**

Stakeholders in heritage conservation: Identification of and role of stakeholders. Research methods on community studies: Community participatory resource assessment techniques; Cognitive mapping; Cultural mapping etc; Community perception and public participation in heritage conservation.

**Unit IV Challenges of conservation of cultural heritage in India****12**

The challenge of conservation of cultural heritage in India. Whose heritage? Multiple meanings, Social access, territoriality, exclusion and inclusion of communities; Syncretism and contestations in heritage sites. Heritage areas and traffic control: Impact of rapid transport systems on heritage areas. Pedestrianization in historic areas. Traffic management in historic Cities/ Areas: at Regional and Local scale.

**Unit V Assessments and Participatory Processes****12**

Participatory processes and frameworks; advocacy planning for conservation; concepts of social, cultural, environmental and economic sustainability. Impact assessments; Heritage Impact Assessment, Environmental Impact Assessment, Visual Impact Assessment, Cultural Heritage Impact Assessment. Revitalization Retrofitting and resilience, redevelopment; HRIDAY, Housing for all, Smart cities. Strategic Foundations for Integrated Heritage Management. Best Practices in Heritage Management.

**Total: 60 Periods****Outcomes**

Students finishing this course will be:

Exposed to theories and practices of conservation beyond the conventionally understood realm.

**References:**

- Louw, M., & Papanicolaou, S. (2019). Buildings Reimagined: A Dialogue between Old and New. Images Publishing Group.
- Charter, I. C. O. M. O. S. (2003). Principles for the analysis, conservation and structural restoration of architectural heritage. Proceedings of the ICOMOS 14th General Assembly in Victoria Falls, Victoria Falls, Zimbabwe, 27-31.
- Szmelter, I. (2013, September). New values of cultural heritage and the need for a new paradigm regarding its care. In CeROArt. Conservation, exposition, Restauration d'Objets d'Art (No. HS). Association CeROArt asbl.
- Derde, W. (2020). On Paradigms, Theories, and Heritage. In R. Kren & M. Leisch-Kiesl (Ed.), Kultur - Erbe - Ethik: »Heritage« im Wandel gesellschaftlicher Orientierungen (pp. 37-48). Bielefeld: transcript Verlag
- Avrami, E. (2000). Values and heritage conservation. Conservation: The Getty Conservation Institute Newsletter, 15(2), 18-21.
- Otero, J. (2022). Heritage conservation future: where we stand, challenges ahead, and a paradigm shift. Global Challenges, 6(1), 2100084.
- Orbaşlı, A. (2017). Conservation theory in the twenty-first century: slow evolution or a paradigm shift. Journal of Architectural Conservation, 23(3), 157-170.
- Turcanu-Carutiu, D. (Ed.). (2022). Heritage: New Paradigm. BoD—Books on Demand.





MACO213 – Heritage and Jurisprudence	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	3
	Tutorial Periods per Week	-
	Studio/Lab/Workshop/Practical's	-
	Total Periods per Week	3

**Objective:**

- The objective of the course is to understand the various aspects of law and jurisprudence needed to strengthen the discipline of heritage conservation.

**Unit I Heritage Legislation in the International Context 6**

The role of law and its importance for society. Principles and approaches to heritage legislation in the international context e.g. Malraux Act, Civic amenities Act, World Heritage Sites regulatory frameworks and case studies.

**Unit II Legislation 9**

Overview of evolving heritage management systems and linked legislation in India; ASI: Conservation Policy

**Unit III Acts 12**

Detailed assessment of the Indian legal framework in the context of protected and unprotected buildings and historic settlements: AMASRA, Model Heritage Act, Planning legislation, Municipal Acts, Environment Act, Rent Control Act, Slum Act, Land Acquisition Act etc. Housing scenario and impact on historic housing stock. Policies, finance and Legislation, Historic and vernacular housing in India, Slum act, Slum policies, Rent Control act, and existing incentives: implications on the historic housing stock.

**Unit IV Planning Incentives for Conservation 9**

AMASR Amendment 2010, 2017 and implications for urban conservation. Regulatory mechanisms and planning incentives for conservation.

**Unit V Public Interest Litigation for Heritage Assets 9**

Public Interest Litigation for Heritage assets: Case studies. Legislation pertaining to adaptive reuse: International case studies.

\*Pedagogic methods and assessment: As a lecture course, it will be linked with the studio exercise on Historic settlement conservation.

**Total: 45 Periods**

**Outcomes**

Students finishing this course will be able to:

Learn various aspects of law and jurisprudence, Indian legal framework to strengthen the discipline of heritage conservation.



**References:**

- ASI, Report. (2014, February), National Policy for Conservation of the Ancient Monuments, Archaeological Sites and Remains, Govt. of India, New Delhi.
- Standard, I. (1893). Criteria for earthquake resistant design of structures. Bureau of Indian Standards, Part, 1.
- Marshall, J. H. (1923). Conservation manual: A handbook for the use of archaeological officers and others entrusted with the care of ancient monuments. Superintendent government printing, India.
- Lixinski, L. (2019). International heritage law for communities: exclusion and re-imagination. Oxford University Press.
- Lixinski, L. (2019). International heritage law for communities: exclusion and re-imagination. Oxford University Press.
- Kawathekar, V. (2020). Legal frameworks for the protection of built heritage in India. Ghaziabad.



MACO214 – Conservation Economics and Finance	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Studio/Lab/Workshop/Practical's	-
Total Periods per Week	3	

**Objective:**

- This course discusses the conceptual framework of the critical area of the economics of heritage, and its centrality for heritage resource management and sustainable development.

**Unit I Economic sustainability for heritage conservation 6**

Economic sustainability for heritage conservation: Basic economic concepts related to heritage, creating bridges between heritage and economics, economic mechanisms for the implementation of heritage conservation from policies to projects.

**Unit II Concepts of Cultural Capital 12**

Concepts of Cultural Capital: Core issues and techniques that determine value embodied in or generated by heritage resources; Types of values of heritage, Measurement and quantification of costs and benefits of heritage conservation in economic terms. Understanding and analysis of Schedule of rates by various agencies for architectural conservation, Costing and estimation-preparation of BOQ's for conservation projects.

**Unit III Non-market evaluation techniques 9**

Non-market evaluation techniques for Heritage resources – Travel Cost, Contingent Valuation, Hedonic Pricing, Combined Methods, Choice Modelling.

**Unit IV Funding heritage conservation 6**

Problems and issues of funding heritage conservation, and Existing programmes for financing. Assessment of economic viability of conservation projects: National & International case studies.

**Unit V Project on valuation of heritage resources 12**

Project on valuation of heritage resources – Case studies of innovative conservation financing mechanisms and programmes.

**Total: 45 Periods****Outcomes**

Students finishing this course will be able to:

Address the complex realities, management issues and dynamic nature of Indian historic towns and cities.

**References:**

- Rizzo, I., & Mignosa, A. (Eds.). (2013). Handbook on the economics of cultural heritage. Edward Elgar Publishing.
- Standard, I. (1893). Criteria for earthquake resistant design of structures. Bureau of Indian Standards, Part, 1.
- Marshall, J. H. (1923). Conservation manual: A handbook for the use of archaeological officers and others entrusted with the care of ancient monuments. Superintendent government printing, India.
- Binda, L., Gambarotta, L., Lagomarsino, S., & Modena, C. (2018). A multilevel approach to the damage assessment and the seismic improvement of masonry buildings in Italy. In Seismic damage to masonry buildings (pp. 179-194). Routledge.
- Pacelli, V., & Sica, E. (2020). The economics and finance of cultural heritage: how to make tourist attractions a regional economic resource. Routledge.



MACO2110 – Elective I: Heritage Impact Assessment	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	-
	Studio/Lab/Workshop/Practical's	1
	Total Periods per Week	3

**Objective:**

- To enable students' exposure to a contemporary study area of their choice, over and above the remaining structured subjects of the programme of study.

This course will offer guidance on the process of commissioning Heritage Impact Assessments (HIAs) for Heritage properties in order to evaluate effectively the impact of potential development on the different values of properties. The guidance is addressed at managers, developers, consultants and decision-makers and is also intended to be relevant to the World Heritage Committee and States Parties.

**Total: 45 Periods**

**References:**

- Jo, E., Mackay, R., Murai, M., & Therivel, R. (2023). Guidance and toolkit for impact assessments in a world heritage context (Ara).
- Cepaitiene, R., Bers, V. M., Szmelter, I., Navickiene, V., (2015). How to assess built heritage? Assumptions, Methodologies, Examples of Heritage Assessment Systems, Florence-Lubin.UNESCO
- UNESCO. Legal Affairs, recommendation concerning the Protection, at National Level, of the Cultural and Natural Heritage.
- Ridge, M. M. (Ed.). (2014). Crowdsourcing our cultural heritage. Ashgate Publishing, Ltd.
- UNESCO. (2012). "World Heritage Committee Places Liverpool on List of World Heritage in Danger.". <http://whc.unesco.org/en/news/890/>
- ICOMOS. (2020). Heritage Impact Assessment (HIA) Guidebook for Bangladesh

MACO2111 – Elective II : Disaster Management of Cultural Resources	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	-
	Studio/Lab/Workshop/Practical's	1
	Total Periods per Week	3

**Objective:**

- To enable students' exposure to a contemporary study area of their choice, over and above the remaining structured subjects of the programme of study.

The course explores the different interlinked components: disaster risk management, cultural heritage management and urban planning and development. At one end of the spectrum, it addresses the general principles of disaster risk management for cultural heritage, while at the other it attempts to provide focused learning for participants to deal with various challenges related to disaster risk management of cultural heritage within their local context.

**Total: 45 Periods**

**References:**

- Binda, L., Gambarotta, L., Lagomarsino, S., & Modena, C. (2018). A multilevel approach to the damage assessment and the seismic improvement of masonry buildings in Italy. In *Seismic damage to masonry buildings* (pp. 179-194). Routledge.
- Jigyasu, R., & Chmutina, K. (Eds.). (2023). *Routledge Handbook on Cultural Heritage and Disaster Risk Management* (1st ed.). Routledge.
- Jigyasu, R., Kim, D., & Shakya, L. (Eds.). (2023). *Good Practices for Disaster Risk Management of Cultural Heritage: Practices of ITC Participants* (1st ed.). Routledge.
- Shaw, R., Sharma, A., & Takeuchi, Y. (2009). *Indigenous knowledge and disaster risk reduction: From practice to policy*. Nova Science Publishers, Inc.
- Binda, L., Gambarotta, L., Lagomarsino, S., & Modena, C. (2018). A multilevel approach to the damage assessment and the seismic improvement of masonry buildings in Italy. In *Seismic damage to masonry buildings* (pp. 179-194). Routledge.



MACO2112 – Elective III: Decolonising Museums and Heritage	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	-
	Studio/Lab/Workshop/Practical's	1
	Total Periods per Week	2

**Objective:**

- To enable students' exposure to a contemporary study area of their choice, over and above the remaining structured subjects of the programme of study.

The course explores involves theoretical teaching of history, general principles of organization, presentation, administration, management, operations and advancement of museums and collections. Museum archaeologists reconstruct the history of humanity, from its origins to today, based on surviving vestiges. The field of Museology will focus on collections conserved in museums, libraries, and archives; protected buildings; rare professional knowledge; cinema; and photography. Museums in the Indian context; contextualizing the dissemination of information; Research and education.

**Total: 45 Periods**

**References:**

- UNESCO. Activities, World Heritage Convention, World Heritage sites and Museums: A pact for sustainable development.
- Routledge Series in Conservation and Museology, Book Series, Routledge & CRC Press
- Bhattacharya, I. Restoring Indian Culture & Heritage through Museology and Conservation.

MACO217 – Summer Internship	<b>Subject Category</b>	<b>TC</b>
	<b>Number of Credits</b>	<b>2</b>
	<b>Lecture Periods per Week</b>	-
	<b>Tutorial Periods per Week</b>	-
	<b>Studio/Lab/Workshop/Practical's</b>	-
	<b>Total Periods per Week</b>	-

**Objective:**

- The objective of the 6-8 weeks summer internship is to inculcate hands on exposure to different phases and aspects of conservation practice in India, including client interaction, as well as fieldwork and coordinated on-site implementation of conservation works with skilled master-masons and craftspeople.

Summer Internship has to be done under the supervision of a qualified Conservation architect, organisation or Conservation professional, involving hands-on experience of various stages of an ongoing conservation project for a minimum period of 6 Weeks. Each student is to document all work responsibility, and prepare a \*Summer Internship Report that includes representative examples of work undertaken: preparatory documentation, condition assessment; development of practical, scientific conservation interventions. Students are encouraged to work on site, and familiarize themselves with specialized structural consolidation, stabilization and restoration techniques as part of the Summer Internship.

\*The students have to submit an internship report of the work done and internship certificate from the employer. They need to make a presentation of the work done during internship period, which will be reviewed and assessed by the internal assessment committee in third semester.



**FOURTH SEMESTER**

MACO221 – Conservation Thesis	<b>Subject Category</b>	TC
	<b>Number of Credits</b>	24
	<b>Lecture Periods per Week</b>	6
	<b>Tutorial Periods per Week</b>	-
	<b>Studio/Lab/Workshop/Practical's</b>	18
	<b>Total Periods per Week</b>	24

**Objective:**

- The aim of thesis is to culminate the academic learning in the conservation programme. Thesis study and topic should focus on conservation of heritage areas which are important in architectural merit, historic interests and cultural values. It should be structured to conserve these heritage areas, save them from ravage and encroachment and destruction.

This shall bring together an understanding of the discipline of conservation acquired over the previous three semesters. The students are encouraged to select any project of their choice which offers an opportunity to synthesize the theoretical, technical and management aspects of conservation, through primary and secondary data collection, compilation, analysis and proposals. The thesis is an opportunity for students to make an original contribution that expands knowledge of conservation in India. The thesis studio is supported by and linked to the other subjects being conducted simultaneously in the semester. The Thesis should address the heritage areas by classifying heritage resources, listing, grading, assessing reviewing legal laws, significance assessment, reviewing legal laws for evaluating heritage monuments/sites/towns/region and proposing policies for planning and conserving heritage areas at Building/Area/City level.

**Deliverables shall include drawings and Thesis report. Progressive presentations shall be made for reviews at various stages.**

Site Visits and Documentation Period: (Spread over Four-weeks depending upon various stages of thesis topic and its requirement).



MACO222 – Heritage Management Seminar	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Studio/Lab/Workshop/Practical's	-
Total Periods per Week	3	

**Objective:**

- The objective of this seminar is to strengthen the management aspect of the selected conservation thesis project.

**Seminar Framework:**

Each student will be identifying emerging areas of heritage management, related to their thesis topic, based on the issues dealt with in the earlier semesters. These aspects could include Risk preparedness for heritage, Cultural resource information management systems, Economic feasibility assessment, Participatory heritage resource management, Conservation site management, Formulation of conservation & development guidelines & bye-laws for heritage areas, among others. Students will undertake a comparative analysis of the management framework in the context of the selected thesis with relevant international and national examples, and present their work in the form of a seminar. Lectures on selected topics will be given to supplement guided research.

**Outcomes**

Individual and group guidance for writing a 5000-word paper on initial exploration of identified research area to supplement Thesis project. This research stage outcome could be published in the SPAV journal and other journals.

**References:**

- Holtorf, C. (2018). Preservation paradigm in heritage management.
- UNESCO Office Bangkok and Regional Bureau for Education in Asia and the Pacific (2021)., Competence framework for cultural heritage management: a guide to the essential skills and knowledge for heritage practitioners, Paris, France.
- King, T. F. (2011). A companion to cultural resource management. A John Wiley & Sons, Ltd., Publication.
- Vileikis, O. (2019). Creating information management systems for cultural World Heritage: Experiences from Central Asia. In The Routledge Handbook on Historic Urban Landscapes in the Asia-Pacific (pp. 181-198). Routledge.
- Feilden, B. M., & Jokilehto, J. (1998). Management guidelines for world cultural heritage sites. (No Title).

<b>MACO223 – Interventions at Historic Buildings</b>	<b>Subject Category</b>	<b>TC</b>
	<b>Number of Credits</b>	<b>3</b>
	<b>Lecture Periods per Week</b>	<b>2</b>
	<b>Tutorial Periods per Week</b>	<b>-</b>
	<b>Studio/Lab/Workshop/Practical's</b>	<b>1</b>
	<b>Total Periods per Week</b>	<b>3</b>

**Objective:**

- This course equips students with specialized knowledge and skills necessary for designing and implementing interventions in historic buildings.

**Unit I Conservation Standards and Guidelines 6**

International and national standards and guidelines for the conservation of historic buildings, focusing on their application in the Indian context. Students will analyze how these guidelines influence conservation practices and policy-making.

**Unit II Structural Interventions and Strengthening Techniques 12**

Structural assessment methods and the latest techniques for repairing and strengthening historic buildings. Challenges and solutions specific to Indian heritage structures, including seismic retrofitting and materials conservation methods adopted in different region.

**Unit III Adaptive Reuse 9**

Principles and practices of adapting historic buildings for new uses while ensuring their functional upkeep. Students will study successful case studies of adaptive reuse in India and develop their own design proposals for similar projects.

**Unit IV Conservation Practices 12**

Practical and professional aspects of conservation, including traditional materials and methods used in conservation of heritage buildings. Hands-on techniques and the integration of modern conservation science with traditional practices.

**Unit V Monitoring and Maintenance of Historic Buildings 6**

This unit covers the ongoing monitoring and maintenance necessary for the long-term conservation of historic buildings. Students will explore preventive conservation techniques, maintenance planning, and the use of modern technology in monitoring heritage structures.

**Total: 45 Periods**

**Outcomes**

Students finishing this course will be able to:

Expertise in designing conservation-oriented interventions for historic Indian buildings.

**References:**

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