

SAVITRIBAI PHULE PUNE UNIVERSITY
(FORMERLY UNIVERSITY OF PUNE)



SYLLABUS FOR

MASTERS IN ARCHITECTURE

M.ARCH. (ARCHITECTURAL CONSERVATION)

(To be implemented w.e.f. A.Y. 2019-20)

BOARD OF STUDIES IN ARCHITECTURE

FACULTY OF SCIENCE AND TECHNOLOGY

PREAMBLE-

Cultural resources of India are vast and diverse. Built heritage is one of the important and huge components of the cultural resources and needs careful attention. Conservation practices which have evolved from monument conservation today focus on cultural landscape. It is a comprehensive term stretching the boundaries of conservation practices to include diverse fields.

Heritage conservation practices are multi-disciplinary in nature and hence the training in conservation extends beyond the existing architectural curriculum in terms of the necessity of inclusion of interdisciplinary subjects from various fields. Nature of conservation projects varies in terms of scale and expertise and is becoming case specific.

The focus on living heritage brings many related fields into the realm of conservation practices. The curriculum should equip the conservation professional with technical as well as managerial skills. His role ranges from a conservation architect, conservation planner to heritage manager with sound philosophical base.

The proposed curriculum tries to address these demands of conservation practices to produce conservation experts capable of taking the emerging challenges in the field. It also tries to build the regional database of cultural resources through academic exercises.

The curriculum stresses the need of sound exposure to the students of the current conservation practices by engaging them in live projects to make them aware of nuances of conservation projects.

PROGRAM EDUCATIONAL OBJECTIVES [PEO]-

1. **KNOWLEDGE BASE** – Develop a strong knowledge base of conservation sciences and philosophy with trans-disciplinary approach.
2. **SKILLS** – Develop skills sets needed for responsible conservation practices.
3. **RESEARCH** – Generate a research culture that will help in promoting authentic conservation practices.
4. **ETHICS** – Inculcate in students the ethics for responsible and sensitive conservation practices.
5. **COMMITMENT** – Develop committed conservation professionals to serve in the interest of betterment of society.

PROGRAM OUTCOMES [PO]

1. **HOLISTIC KNOWLEDGE** - Imparting holistic knowledge of historic built environment based on multidisciplinary approach along with the recent advances in conservation sciences.

2. **PROFESSIONAL SKILLS** – Developing professional skills to handle conservation challenges of various nature and scales with leadership qualities and strong communication skills.
3. **RESEARCH CULTURE**- Develop a strong research culture to address the challenges in conservation practices effectively.
4. **ETHICS**- Inculcate high ethical values in budding conservation professionals to create responsible and sensitive conservation experts.
5. **COMMITTED PROFESSIONALS** – Develop committed conservation professionals who will work for the betterment of society for sustainable future.

Sr No	Program outcomes	Subjects in curriculum
1	Holistic Knowledge	Intro to Conservation, Material Culture Studies, Planning theory, Structural conservation I and II, History, Theory and Criticism, Conservation Management, Cultural landscape, Conservation Legislation, Heritage Risk assessment and Mitigation
2	Professional Skills	Conservation Studio-I, Studio-II, studio- III, Project, Conservation Practices and Training
3	Research Culture	Conservation Studio-I, Studio-II, studio- III, Project,
4	Ethics	Conservation Practices and Training, Research I and II
5	Committed Professionals	Conservation Studio-I, Studio-II, studio- III, Project

Sr No	Electives	Tentative Subjects for Electives
01	Elective I(Sem I)	1.Digital Tools 2. Building Performance 3.Advance Documentation Methods
02	Elective II (Sem II)	1.Urban Design 2. City and Theory 3. Urban Regeneration
03	Elective III(Sem IV)	Open Elective –Choice based -Interdisciplinary or Industry Linked Elective

Note- The Institute shall have the freedom to offer listed or any additional subjects based on the availability of experts.

MATRIX OF PROGRAM EDUCATIONAL OBJECTIVES AND PROGRAM OUTCOMES

PEO	PO1 Holistic Knowledge	PO2 Professional Skills	PO3 Research Culture	PO4 Ethics	PO5 Committed Professionals
PEO1 Knowledge Base	√	√	√	√	
PEO2 Skills	√	√	√	√	√
PEO3 Research	√		√		√
PEO4 Ethics		√		√	√
PEO5 Commitment		√	√	√	√

Semesters I - M.ARCH. (ARCHITECTURAL CONSERVATION)											
Course Code	Course Title	Course Type	Contact Periods (60 mins)	Teaching Scheme			Examination Scheme				Marks
				Theory/ week	Studio/ week	Credits	SS	SV	Th		
									In Sem	End Sem.	
2019AC101	Conservation Studio- I	C1	10	2	08	10	-	400	Nil	Nil	400
2019AC102	Elective – I	EL	3	1	2	3	100	Nil	Nil	Nil	100
2019AC103	Introduction To Conservation	C2	4	2	2	4	200	Nil	Nil	Nil	200
2019AC104	Material Culture Studies	SP1	3	2	1	3	Nil	Nil	30	70	100
2019AC105	Planning Theory	SP2	3	2	1	3	Nil	Nil	30	70	100
2019AC106	Structural Conservation- I	L	2	1	1	2	100	Nil	Nil	Nil	100
			25	10	15	25	400	400			1000

For Semesters II - M.ARCH. (ARCHITECTURAL CONSERVATION)											
S. No. Course Code	Course Title	Cour se Type	Contact Periods (60 mins)	Teaching Scheme			Examination Scheme				
				Theor y/ we ek	Stud io/ wee k	Cre dits	SS	SV	Theory		Marks
									In Sem	End Sem.	
2019AC201	Conservation Studio- II	C1	10	2	8	10	-	400	Nil	Nil	400
2019AC202	Elective – II	EL	3	2	1	3	100	Nil	Nil	Nil	100
2019AC203	History, Theory and Criticism	C2	4	2	2	4	200	Nil	Nil	Nil	200
2019AC204	Conservation Management	SP1	3	2	1	3	Nil	Nil	30	70	100
2019AC205	Research I	SP2	3	2	1	3	Nil	Nil	30	70	100
2019AC206	Structural Conservation- II	L	2	1	1	2	100	Nil	Nil	Nil	100
			25	11	14	25	400	400			1000

Semesters III - M.ARCH. (ARCHITECTURAL CONSERVATION)											
S. No. Course Code	Course Title	Course Type	Contact Periods (60 mins)	Teaching Scheme			Examination Scheme				Marks
				Theor y/wee k	Stud io/ wee k	Cre dits	SS	SV	Theory		
									In Sem	End Sem	
2019AC301	Conservation Studio- III	C1	10	2	08	10	-	400	Nil	Nil	400
2019AC302	Research II	C2	3	2	1	3	100	Nil	Nil	Nil	100
2019AC303	Conservation Practices and Training **	C3	4	2	2	4	-	200	Nil	Nil	200
2019AC304	Cultural Landscape	SP1	3	2	1	3	Nil	Nil	30	70	100
2019AC305	Conservation Legislation	SP2	3	2	1	3	Nil	Nil	30	70	100
2019AC306	Heritage Risk Assessment and Mitigation	L	2	1	1	2	100	Nil	Nil	Nil	100
			25	11	14	25	200	600			1000

** - This includes Professional Training (40 full working days) to be undertaken during intermediate time between II & III Semester, details of which are mentioned in the detailed syllabus. The Oral Assessment of the same will be held at the end of Semester III. The subject is included as core subject and will have both sessional and viva assessment.

Semesters IV - M.ARCH. (ARCHITECTURAL CONSERVATION)											
Course Code	Course Title	Course Type	Contact Periods (60 mins)	Teaching Scheme			Examination Scheme				Marks
				Theor y/ we ek	Stud io/ wee k	Cre dits	SS	SV	Th		
									In Sem	End Sem.	
2019AC401	Conservation Project	C1	20	4	16	20	-	800	Nil	Nil	800
2019AC402	Elective III*	EL	5	2	3	5	200	-	Nil	Nil	200
			25	6	19	25	200	800	Nil	Nil	1000

*Elective III can be offered as an open elective. In case it is not possible to offer open elective, colleges should offer any elective from the list of electives which the student has not undertaken in any previous semester.

DETAIL SYLLABUS

SEM - I

SUBJECT TITLE: CONSERVATION STUDIO-I				
Subject Code : 2019AC101				
Teaching Scheme		Examination Scheme	Marks	
Theory Periods per week	2	Sessional	300	
Studio Periods per week	8	Viva/Oral	100	
Total Contact Periods (60 min period) per week	10	In-semester Examination	Nil	
		End-semester Examination	Nil	
Total Credits	10	Total Marks	400	

COURSE OBJECTIVES: Focus of studio is on historic building in a historic area through various surveys, its analysis. Conservation of the building to be demonstrated with desired interventions at building level as well as the vicinity addressing town's requirements at large.

COURSE CONTENT:

Unit	Contents
Unit I	Historical research, Perception of the user society
Unit III	Inventory formation and detail documentation
Unit IV	Analysis for materials, techniques, spatial arrangement, art and crafts, significant element
Unit V	Statement of significance and identification of issues
Unit VI	Conservation interventions
Unit VII	Adaptive Reuse Proposal

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

Documentation, analysis and proposal drawings with relevant case studies, archival research, along with Report, models etc.

OUTCOME:

The emphasis is on methods of data collection, analysis and inferences for conservation and design proposals.

RECOMMENDED READINGS:

- Divay Gupta (2006) Conservation Brief- Identification and documentation of Built Heritage in India by INTACH
- Butterworth (1990) Guide to recording Historic Buildings by ICOMOS
- Priyaleen Singh Conservation Brief- Historic gardens: Making An Inventory by INTACH

SUBJECT TITLE: ELECTIVE - I				
Subject Code : 2019AC102				
Teaching Scheme		Examination Scheme	Marks	
Theory Periods per week	01	Sessional	100	
Studio Periods per week	02	Viva/Oral	Nil	
Total Contact Periods (60 min period) per week	03	In-semester Examination	Nil	
		End-semester Examination	Nil.	
Total Credits	03	Total Marks	100	

COURSE OBJECTIVES: Elective will introduce student to the emerging digital tools and technology that are being used in conservation practices.

COURSE CONTENT:

Individual college/institute may offer the students one or more topics, depending upon the availability of experts and resource material. The colleges will have the opportunity to focus on one or more of the following topics:

- 1. Digital Tools**
- 2. Building Performance**
- 3. Advance Documentation Methods**

Detailed syllabus for all topics will be finalized by individual college/institute in consultation with expert faculty, considering the time and marks allotted to the subject.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

Sessional works includes drawings, models, presentations prepared using digital tools in mapping, analysis and communication.

OUTCOME:

Students will be equipped with desired digital technology know- how needed in heritage conservation practices.

Recommended Readings

1. . Woodbury,R. *Parametric; Design for Architecture* Routledge,NewYork
2. Tedeschi,A.(2014) *Algorithmic aided design* . Le Penseur
3. Payne,A.(2010), *The Grasshopper Primer_Second Edition*. **Modelab & Gitbook**

SUBJECT TITLE: INTRODUCTION TO CONSERVATION				
Subject Code : 2019AC103				
Teaching Scheme		Examination Scheme	Mark s	
Theory Periods per week	02	Sessional	200	
Studio Periods per week	02	Viva/Oral	Nil	
Total Contact Periods (60 min period) per week	04	In-semester Examination	Nil	
		End-semester Examination	Nil	
Total Credits	04	Total Marks	200	

COURSE OBJECTIVES:

To orient student to the concept of conservation, its evolution and philosophy and technical aspects of conservation.

COURSE CONTENT:

Unit	Content
Unit I	Theories of Conservation and its concepts & Background
Unit II	Introduction to Conservation Approaches and Organizational setup, various charters- International & National.
Unit III	Documentation Methods –Modern Trends & Digital Technologies
Unit IV	Heritage Legislations- and its reaches –Indian Context
Unit V	Conservation Practices and its challenges, Technical requirements of a conservation project
Unit VI	Research component in a conservation project

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

- book /Journal /article /research paper review writing
- tutorial / article writing

- seminar presentation
- thematic heritage mapping and survey techniques based on studio
- Heritage potential and value assessment based on studio.
- Critical appreciation of a conservation project.

OUTCOME:

- Heritage mapping and its value assessment through primary field survey.
- Developing understanding on different approaches in conservation through trends for Indian Context.
- Critical appreciation of conservation interventions through live cases.
- Enhancing abilities to formulate different types of inventories, defect and condition mapping, damage assessment at a Building level.

RECOMMENDED READINGS:

- Sir Bernard Fieldon., (1990) A Technical Manual. INTACH –Delhi chapter
- Jukka Jokilehto, A History of Architectural Conservation.1986- PhD thesis, The University of York,England .
- Sir John Marshall, Conservation Manual (1923), A.S.I – British India.
- All International and National Charters by UNESCO

SUBJECT TITLE: MATERIAL CULTURE STUDIES				
Subject Code : 2019AC104				
Teaching Scheme		Examination Scheme	Marks	Duration
Theory Periods per week	02	Sessional	Nil	
Studio Periods per week	01	Viva/Oral	Nil	
Total Contact Periods (60 min period) per week	03	In-semester Examination	30	
		End-semester Examination	70	150 min
Total Credits	03	Total Marks	100	

COURSE OBJECTIVES:

- To introduce students to understand how material culture communicate ideas in history, archaeology and helps better understanding of the culture pertaining to it.
- It also attempts to induce the role of Anthropology as a social science, its correlation with contemporary cultural resources as an integral aspect of sustainability.

COURSE CONTENT:

Unit	Content
Unit I	Introduction to Material Culture and its role in interpreting past
Unit II	Methodology of Studying Material Culture & its resources
Unit III	Archaeological and Anthropological Approaches in exploring past
Unit IV	Social History and Material Culture
Unit V	Technology, Built Habitat And Material Culture
Unit VI	Museology & Preservation of Material culture

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

- book /Journal /article /research paper review writing
- tutorial / article writing
- seminar presentation on tools of management
- World Heritage sites and concepts of archeological parks
- formulation of Management framework
- Critical appreciation of Museum project

OUTCOME:

- Material Cultural resource identification, mapping and its interpretation.
- Developing understanding on different social sciences approaches in relation to heritage conservation through trends for Indian Context.
- Field study – Museum Visit and report - Critical appreciation of Museum project and preservation techniques of material evidences.
- Project – research on material culture of the settlement taken up in the studio I- Enhancing abilities to formulate different types of inventories, defect and condition mapping, damage assessment of material evidences and artifacts in association to build environs.

RECOMMENDED READINGS:

- Tilley, Chris, Webb Keane, Susanne Kuechler, Mike Rowlands, Patricia Spyer (2006) *Handbook of Material Culture*, Sage Publication
- Dan Hicks, Mary C. Beaudry(2010) *The Oxford Handbook of Material Culture Studies*, The Oxford University Press, Oxford
- Henry H. Glassie (1999), *Material culture*, Indiana University Press,

SUBJECT TITLE: PLANNING THEORY				
Subject Code : 2019AC105				
Teaching Scheme		Examination Scheme	Marks	Duration
Theory Periods per week	02	Sessional	Nil	
Studio Periods per week	01	Viva/Oral	Nil	
Total Contact Periods (60 min period) per week	03	In-semester Examination	30	
		End-semester Examination	70	150 min
Total Credits	03	Total Marks	100	

COURSE OBJECTIVES:

- To introduce students to the various streams of planning that directly or indirectly influence the process of conservation.
- Historic Housing forms the major part of historic core of towns or villages. The Objective is to understand the typology and transformation processes in the living heritage of housing and highlight the relation of transformation and conservation process.

COURSE CONTENT:

- Unit I Planning objectives and introduction to planning terminologies, plans development structures,
- Unit II Introduction to planning streams like urban planning, regional planning, traffic and transportation, environmental Planning and housing
- Unit III Overview of planning acts and development controls, byelaws having impact in historic areas. Planning for conservation interventions.
- Unit IV Morphology of a traditional habitat, Housing typology, concepts, policies, socio-political aspects of urbanization, urban growth
- Unit V Methodology to study existing housing stock, characteristics, problems& Management of housing stock
- Unit VI Conservation efforts for historic housing

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

- book /Journal /article /research paper review writing
- tutorial / article writing
- Field study –seminar presentation on Traditional Housing
- World Heritage sites and conservation of historic housing

- Project - Critical appreciation DP- development plans
- Book study – Conservation efforts in Planning, review of development plans CDP-Delhi Case study

OUTCOME:

- Understanding traditional sustainable means of development and its background
- Critical appreciation of concepts of Planning and development over the period.
- Enhancing abilities to formulate Heritage sensitive development and planning in present context of Historic settlements

RECOMMENDED READINGS:

- Reading Materials By ITPI
- Peter Hall (2002) *Urban And Regional Planning* , Routledge, London
- Urban Planning Guide – American Society of civil engineers

SUBJECT TITLE:				
STRUCTURAL CONSERVATION - I				
Subject Code : 2019AC106				
Teaching Scheme		Examination Scheme	Marks	
Theory Periods per week	01	Sessional	100	
Studio Periods per week	01	Viva/Oral	Nil	
Total Contact Periods (60 min period) per week	02	In-semester Examination	Nil	
		End-semester Examination	Nil	
Total Credits	02	Total Marks	100	

COURSE OBJECTIVES:

This course provides introduction to the practical and technical aspects of the traditional material of historic buildings and related conservation techniques and to introduce to structural behaviour of traditional structures.

COURSE CONTENT:

- Unit I Study of traditional structures
- Unit II
 - Traditional materials – properties, behaviour with lab experiments and defects
 - Characterization of materials and compatibility of its usage
- Unit III Structural Behaviour of traditional structures
- Unit IV Diagnosis and assessment of defects in building materials by atmospheric elements
- Unit V New Building materials in conservation practices
- Unit VI New conservation techniques and role of software's in assessing structural conditions, Remedial measures

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

- Minimum six assignments based on,
- Field study –Hands on or site visit of least one ongoing conservation project
- Book study – case studies
- Project – Detail Documentation of a traditional structure
- Lab study of a material

OUTCOME: Students will acquire knowledge of traditional materials and their behavior and workability. The assignments shall include on site observation and application to develop measures of conservation

RECOMMENDED READINGS:

- W Morgan's. (1964). *The elements of Structure*. Great Britain by Pitman Publishing Limited
- Henry J. Cowan. (1981). *Structural Systems*. Van Nostrand Reinhold co.
- Hoyle Robert. (1973). *Wood Technology in the Design of Structures*. Iowa State Pr; subsequent edition
- Gurmeet S Rai, P Desarkar. (2006). *What are Lime Mortar*. INTACH UK TRUST
- Forsyth, Michael. (2008). *Material & Skills for Historic Building Conservation*. Balckwell Publishing Ltd.

DETAIL SYLLABUS

SEM - II

SUBJECT TITLE: CONSERVATION STUDIO–II				
Subject Code : 2019AC201				
Teaching Scheme		Examination Scheme	Marks	
Theory Periods per week	2	Sessional	300	
Studio Periods per week	8	Viva/Oral	100	
Total Contact Periods (60 min period) per week	10	In-semester Examination	Nil	
		End-semester Examination	Nil	
Total Credits	10	Total Marks	400	

COURSE OBJECTIVES:

- Objective of this subject is to introduce student to identify the urban heritage and complexities involved in devising conservation policy and supporting strategies for same.
- Training the students to map urban heritage and record transformations through urban pressures.
- Develop through understanding of historic layers of the surrounding precinct and formulate a design in context program catering to modern needs of the locality in an architectural vocabulary corresponding the historic context.

COURSE CONTENT:

Unit	Content
Unit I	Identification of urban heritage in historic town and archival research.
Unit II	Mapping heritage & Identification of issues, through primary research ,performing SWOT
Unit III	Devising a comprehensive conservation policy dealing all levels of interventions
Unit IV	Delineating a heritage precinct in the town with urban attributes.
Unit V	Devising Area conservation strategy & Preparing Management framework
Unit VI	Designing a harmonious infill in historic context

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

- Maps/ book /Journal /article /research paper – intensive data collection and archival research from secondary sources.
- formulation of Inventories formats and primary research questionnaire and base maps
- primary surveys and field work mapping and inferences
- Analysis of cultural resources at multiple levels for their heritage potential and issues.

- Comparative case studies for urban heritage and their conservation policies.
- program feasibility of a design in context exercise within the delineated study area
- Design brief and area statement along with site analysis for a design proposal.

OUTCOME:

Final output will be in the form of presentation based on sets of mappings & drawings along with a detailed project report including,

- Cultural resource identification, mapping and its value assessment through primary field survey.
- SWOT analysis and identification of parameters for conservation strategies.
- formulation of material library, design and planning vocabulary , decorative features and building crafts along with condition assessment at a Building level for design in context exercise

RECOMMENDED READINGS:

- Studio site/ town based local history, research works and publications.
- Comparative case studies for urban heritage and their conservation policies.
- Sir Bernard Fieldon., (1990) *A Technical Manual*. INTACH –Delhi chapter
- Jukka Jokilehto, *A History of Architectural Conservation*.1986- PhD thesis, The University of York,England .
- Sir John Marshall, *Conservation Manual* (1923), A.S.I – British India.
- All International and National Charters by UNESCO

SUBJECT TITLE: ELECTIVE - II				
Subject Code : 2019AC202				
Teaching Scheme		Examination Scheme	Mark s	
Theory Periods per week	02	Sessional	100	
Studio Periods per week	01	Viva/Oral	Nil	
Total Contact Periods (60 min period) per week	03	In-semester Examination	Nil	
		End-semester Examination	Nil	
Total Credits	03	Total Marks	100	

COURSE OBJECTIVES: Elective will introduce student to the complexities of urban situations

COURSE CONTENT : Individual college/institute may offer the students one or more topics, depending upon the availability of experts and resource material. The colleges will have the opportunity to focus on one or more of the following topics:

- 4. Urban Design**
- 5. City And Theory**
- 6. Urban Regeneration**

Detailed syllabus for all topics will be finalized by individual college/institute in consultation with expert faculty, considering the time and marks allotted to the subject.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

Sessional works includes articles and book reviews, Report for critical study of urban conservation cases. Project report comprising of drawings, models (if desired) demonstrating the application of the knowledge gathered in studio proposal.

OUTCOME:

Students will learn to critically study the urban situations to understand the complexities involved in interventions at urban levels.

RECOMMENDED READINGS:

- Aldo Rossi (1984). *The Architecture of the City*: MIT Press. Massachusetts
- Gordon Cullen (1961) *Townscape* : Architecture Press. New York.
- Kevin Lynch (1960) *The Image of the City* : MIT Press. Massachusetts
- Research Articles on urban Morphology

SUBJECT TITLE: HISTORY, THEORY AND CRITICISM				
Subject Code : 2019AC203				
Teaching Scheme		Examination Scheme	Marks	
Theory Periods per week	02	Sessional	200	
Studio Periods per week	02	Viva/Oral	Nil	
Total Contact Periods (60 min period) per week	04	In-semester Examination	Nil	
		End-semester Examination	Nil	
Total Credits	04	Total Marks	200	

COURSE OBJECTIVES:

- Objective of this course is to introduce students to different theories, philosophies that have significant contribution in the development of conservation practices.
- It will also make student familiar with regional history and evolution of architectural styles

COURSE CONTENT:

Unit I	Development of history
Unit II	Famous historians and various approaches to history
Unit III	Movements in art and architecture
Unit IV	Movements in philosophy and literature and its interpretation
Unit V	Study of architectural history of the region
Unit VI	Identification of vernacular styles

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

- Minimum six assignments based on,
- Field study report comprising of drawings, models (if desired)– Study of Traditional and vernacular building typology
- Study of building crafts
- Book study report– Review of at least one book as suggested by the faculty

OUTCOME:

Students will become well versed with importance of theory in practice. They will also acquire the knowledge of regional history and heritage.

RECOMMENDED READINGS:

- John Ruskin (1849) reprinted 2012, *Seven Lamps of Architecture*, Dover Publication Inc., New York
- Ventury Robert (1966) *Complexities and contradiction in architecture*, The Museum of Modern art, New York.
- John Summerson (1963) *Classical Language of Architecture* MIT Press, Massachusetts.
- Hanno- Walter Krufft (1994) *A History of Architectural Theory* Princeton Architectural Press, New York.

SUBJECT TITLE: CONSERVATION MANAGEMENT				
Subject Code : 2019AC204				
Teaching Scheme		Examination Scheme	Marks	Duration
Theory Periods per week	02	Sessional	Nil	
Studio Periods per week	01	Viva/Oral	Nil	
Total Contact Periods (60 min period) per week	03	In-semester Examination	30	
		End-semester Examination	70	150 min
Total Credits	03	Total Marks	100	

COURSE OBJECTIVES:

- To induce the role of Management of cultural resources as an integral aspect of sustainability.
- As a practice of managing cultural heritage, this subject aims to explore systematic and methodical approaches and tools of management of cultural resource at various levels in various disciplines.
- It is a branch of cultural resources management (CRM), although it also draws on the practices of cultural conservation, restoration, museology, archaeology, history and architecture. It also highlights the various realms of management this discipline is entering into.

COURSE CONTENT:

Unit I	Concept of Cultural Resources and Cultural resources management – a Paradigm shift
Unit II	Cultural Resource identification, Mapping and their heritage assessment.
Unit III	Conservation Management plans (CMPs) and tools of managements with integral fundamental concepts at various levels.
Unit IV	World heritage management and its frameworks of nomination, formulation of inscription & implementation with relevant case studies.
Unit V	Indian scenario of heritage management & ASI contribution in world heritage management - Indian case study, heritage tool kits at local governance level.
Unit VI	Emerging approaches like ITUC- Integrated Territorial Urban Conservation and its relevance to Indian scenario – Integrated planning and heritage management

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

- book /Journal /article /research paper review writing
- tutorial / article writing
- Project – Formulation OF Managemt Framwork at town level in accordance to conservation studio-II- policies & strategies- seminar presentation on tools of management
- World Heritage Management and case studies relative to studio
- Field study – site visit of least one ongoing conservation project and an organization involved in management of conservation works. formulation of Management framework-
- Critical appreciation of an integrated Conservation management plan-Hampi

OUTCOME:

- Cultural resource identification, mapping and its value assessment through primary field survey.
- Developing understanding on different management approaches in conservation through trends relevant for Indian Context.
- Critical appreciation of Management aspects & tools through 8 live cases.
- Enhancing abilities to formulate different types of inventories, defect and condition mapping, damage assessment at a Building level.

RECOMMENDED READINGS:

- Roger Kain (1981) *Planning for conservation* St. Martins Press New York,
- Alan Dobby (1978) *Conservation and Planning* Hutchinson of London,
- Rahul Mehrotra, Gunter Nest, Sawant Sandhya (1994) *The Fort Precinct in Bombay – A proposal for Area conservation* Maxmueller Bhavan Mumbai.
- Management Plans of world heritage sites
- Intergrated Management case study of Hampi – world heritage site.

SUBJECT TITLE: RESEARCH - I				
Subject Code : 2019AC205				
Teaching Scheme		Examination Scheme	Marks	Duration
Theory Periods per week	02	Sessional	Nil	
Studio Periods per week	01	Viva/Oral	Nil	
Total Contact Periods (60 min period) per week	03	In-semester Examination	30	
		End-semester Examination	70	150 min
Total Credits	03	Total Marks	100	

COURSE OBJECTIVES: The objective of this subject is to introduce student to theoretical framework of research, techniques of research writing and research philosophy.

COURSE CONTENT:

Unit I	Introduction, significance, Types of Research, Various terms
Unit II	Research Methods, Research sample and methods of sampling, data types and methods of collection
Unit III	Aspects of research, literature review, conducting a research, writing reviews
Unit IV	Ethics in research
Unit V	Research Design- Research plan and research questions , tools and techniques of research , reference writing
Unit VI	Historical and qualitative research, quantitative research.

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

Minimum six assignments based on,

Field study – research on historic town

Book study – Article/ book review writing

Tutorial writing

OUTCOME : Equipping students for carrying out research and critically examining the research done by others.

RECOMMENDED READINGS

- Groat Linda and David Wang (2002) *Architectural research methods* John Wiley & sons New York.
- Kothari C.R. (2004) *Research Methodology, Methodology and Techniques* New Age International Publisher New Delhi.

SUBJECT TITLE: STRUCTURAL CONSERVATION - II				
Subject Code : 2019AC206				
Teaching Scheme		Examination Scheme	Marks	Duration
Theory Periods per week	01	Sessional	100	
Studio Periods per week	01	Viva/Oral	Nil	
Total Contact Periods (60 min period) per week	02	In-semester Examination	Nil	
		End-semester Examination	Nil	
Total Credits	02	Total Marks	100	

COURSE OBJECTIVES:

To equip students with technical know-how required for successful structural conservation. It will focus on traditional as well as contemporary methods and techniques used in structural interventions

COURSE CONTENT:

Unit I	Principles of interventions
Unit II	Identification of problems and Identifying possible measures and choosing appropriate measures
Unit III	Structural interventions for different structural elements like arches, dome, vaults, columns, beams
Unit IV	Retrofitting and strengthening
Unit V	Preventive measures
Unit VI	Demonstration

SUBMISSION REQUIREMENT FOR SESSIONAL WORK:

- Minimum six assignments based on,
- Field study – Study of a historic structure for structural assessment
- Book study – Case studies for interventions
- Project – Based on field study a detail project report of a structure studied including condition mapping and desired interventions

OUTCOME:

Students will acquire skills to find appropriate remedial measures and solutions for strengthening and retrofitting of structure.

RECOMMENDED READINGS:

- James R. Benya, Donna J. Leba. (2011). *Lighting Retrofit & Relighting*. Wiley.
- A. R. Powys. (1981). *Repair of Ancient Buildings, Society for Protection of Ancient Buildings*. Society for the Protection of Ancient Building
- Poul Beckmann. (1995). *Structural Aspects of Building Conservation*. Mc Graw- Hill
- Jhon Marshall. (1923). *Conservation Manual: A handbook for the use of Archaeological Officers and others entrusted with the care of ancient monuments*. Calcutta: Superintendent Government Printing, Archaeological Survey of India
