



Estd. 1962
NAAC 'A' Grade
MHRD-NIRF- 28th Rank

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दुरध्वनी (ईपीएबीएक्स) २६०९००० (अभ्यास मंडळे विभाग— २६०९०९४)

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SU/BOS/Sci & Tech/10402

Date: 24/09/2018

To,

The Principal/ Director,

All affiliated Architecture Colleges,

Shivaji University, Kolhapur..

Subject: Regarding syllabi of Part I & II M.Arch. (General Architecture)
under the Faculty of Science & Technology

Sir/Madam,

With reference to the subject mentioned above, I am directed to inform you that the university authorities have accepted and granted approval to the revised Part I & II M.Arch. (General Architecture) syllabi, Nature of question paper under the Faculty of Science & Technology.

This syllabus and equivalence shall be implemented from the academic year 2018-2019 (i.e. from June 2018) onwards. A soft copy containing the syllabus is attached herewith and it is also available on university website www.unishivaji.ac.in. (Online Syllabus)

The question papers on the pre-revised syllabi of above mentioned course will be set for the examinations to be held in October /November 2018 & March/April 2019. These chances are available for repeater students, if any.

You are, therefore, requested to bring this to the notice of all students and teachers concerned.

Thanking you,

Yours faithfully,

Dy Registrar

Copy to:

1	The Dean, Faculty of Science & Technology	7	Computer Centre
2	The Chairman, Respective Board of Studies	8	Affiliation Section (T.1)
3	Director, Examination and Evaluation	9	Affiliation Section (T.2)
4	Eligibility Section	10	P.G.Admission Section
5	O.E. – 4	11	P.G Seminar Section
6	Appointment Section	12	Meeting Section

SHIVAJI UNIVERSITY, KOLHAPUR

M- ARCH. (GENERAL) CHOICE BASED CREDIT SYSTEM CURRICULAM AND SYLLABUS FOR I TO IV SEMESTERS

SEMESTER - I

S.NO	Course Code	Course Title	Category	Contact Periods	L	T	P/S	C	PR	
THEORY										
01	MAGT101	Contemporary Architecture.	TH	3	3	0	0	3		
02	MAGT102	Mass Housing.	TH	3	3	0	0	3		
03	MAGT103	Urban Design	TH	3	3	0	0	3		
ELECTIVE										
04	MAGE104	Elective – I Vernacular Architecture	ELV	3	3	0	0	3		
STUDIO										
05	MAGS105	Landscape Design	STU	6	0	0	6	3		
06	MAGS106	Advanced Architectural Design Studio- I	STU	12	0	0	12	6		
Total				30	12	0	18	21		

SEMESTER - II

S.NO	Course Code	Course Title	Category	Contact Periods	L	T	P/S		PR
THEORY									Pass in MAGS 106
01	MAGT201	Research Methodologies in Architecture	TH	3	3	0	0	3	
02	MAGT202	Human Habitat studies & Planning Theory	TH	3	3	0	0	3	
03	MAGT203	Urban Infrastructure development & Environmental laws.	TH	3	3	0	0	3	
ELECTIVE									
04	MAGE204	Elective – II Sustainable Architecture	ELV	3	3	0	0	3	
STUDIO									
05	MAGS205	Heritage conservation & Documentation	STU	6	0	0	6	3	
06	MAGS206	Advanced Architectural Design Studio- II	STU	12	0	0	12	6	
Total				30	12	0	18	21	

SHIVAJI UNIVERSITY, KOLHAPUR

M- ARCH. (GENERAL) CHOICE BASED CREDIT SYSTEM CURRICULAM AND SYLLABUS FOR I TO IV SEMESTERS

SEMESTER - III

S.NO	Course Code	Course Title	Category	Contact Periods	L	T	P/S		PR
THEORY									Pass in MAGS 206
01	MAGT301	Finance & Real estate Management	TH	3	3	0	0	3	
02	MAGT302	Architecture Legalities & Practice.	TH	3	3	0	0	3	
ELECTIVE									
03	MAGE303	Elective – III Traffic & Transportation Planning	ELV	3	3	0	0	3	
STUDIO									
04	MAGS304	M-arch Dissertation Stage- I	STU	6	0	0	6	3	
05	MAGS305	Advanced Architectural Design Studio- III	STU	12	0	0	12	6	
Total				27	9	0	18	18	

SEMESTER - IV

S.NO	Course Code	Course Title	Category	Contact Periods	L	T	P/S		PR
THEORY									Pass in MAGS 305
01	MAGT401	Advanced Services in High Rise Buildings	TH	3	3	0	0	3	
STUDIO									
05	MAGS402	M-arch Dissertation Stage- II	STU	24	0	0	24	12	
Total				27	3	0	24	15	

Total No of Credits 'C' = 75

SHIVAJI UNIVERSITY ,KOLHAPUR

Scheme of Teaching and Examination of Semester - I Master of Architecture (General) 2018

Sr. No	Subject code	Category	Title of Subject	Period per week (1Period = 50 mins)				Scheme of Examination				
				Lecture	Studio	Practical	Total	Duration (Hrs)	Theory (T P)	Prog Marks (I P)	Viva Marks (EV)	Total
01	MAGT101	TH	Contemporary Architecture.	3	0	0	3	3	100	50	0	150
02	MAGT102	TH	Mass Housing.	3	0	0	3	3	100	50	0	150
03	MAGT103	TH	Urban Design	3	0	0	3	3	100	50	0	150
04	MAGE104	ELV	Elective – I Vernacular Architecture	3	0	0	3	3	0	150	0	150
05	MAGS105	STU	Landscape Design	0	6	0	6	6	0	50	100	150
06	MAGS106	STU	Advanced Architectural Design Studio- I	0	12	0	12	12	0	150	150	300
Total				12	18	0	30	30	300	450	250	1050

Subject Code/Category Abbreviation

MAGT : Master of Architecture General Theory
MAGE : Master of Architecture General Elective.
MAGS : Master of Architecture General Studio.

TH: Theory T : Theory Paper
ELV: Elective IP: Internal Progressive
STU: Studio EV: External Viva

Minimum marks for Pass :

Theory Paper: 45 %
Internal Progressive : 50%
External Viva : 50 %

SHIVAJI UNIVERSITY ,KOLHAPUR

Scheme of Teaching and Examination of Semester - II Master of Architecture (General) 2018

Sr. No	Subject code	Category	Title of Subject	Period per week (1Period = 50 mins)				Scheme of Examination				
				Lecture	Studio	Practical	Total	Duration (Hrs)	Theory (T P)	Prog Marks (I P)	Viva Marks (EV)	Total
01	MAGT201	TH	Research Methodologies in Architecture	3	0	0	3	3	100	50	0	150
02	MAGT202	TH	Human Habitat Studies & Planning theory	3	0	0	3	3	100	50	0	150
03	MAGT203	TH	Urban Infrastructure development & Environmental Laws.	3	0	0	3	3	100	50	0	150
04	MAGE204	ELV	Elective – II Sustainable Architecture	3	0	0	3	3	0	150	0	150
05	MAGS205	STU	Heritage conservation & Documentation	0	6	0	6	6	0	50	100	150
06	MAGS206	STU	Advanced Architectural Design Studio- II	0	12	0	12	12	0	150	150	300
Total				12	18	0	30	30	300	500	250	1050

Subject Code/Category Abbreviation

MAGT : Master of Architecture General Theory

MAGE : Master of Architecture General Elective.

MAGS : Master of Architecture General Studio.

TH: Theory

T : Theory Paper

ELV: Elective

IP: Internal Progressive

STU: Studio

EV: External Viva

Minimum marks for Pass :

Theory Paper: 45 %

Internal Progressive : 50%

External Viva : 50 %

SHIVAJI UNIVERSITY ,KOLHAPUR

Scheme of Teaching and Examination of Semester - III Master of Architecture (General) 2018

Sr. No	Subject code	Category	Title of Subject	Period per week (1Period = 50 mins)				Scheme of Examination				
				Lecture	Studio	Practical	Total	Duration (Hrs)	Theory (TP)	Prog Marks (IP)	Viva Marks (EV)	Total
01	MAGT301	TH	Finance & Real estate Management	3	0	0	3	3	100	50	0	150
02	MAGT302	TH	Architecture Legalities & Practice.	3	0	0	3	3	100	50	0	150
03	MAGT303	ELV	Elective – III Traffic & Transportation Planning	3	0	0	3	3	100	50	0	150
04	MAGE304	STU	M-arch Dissertation Stage- I	0	6	0	6	6	0	50	100	150
05	MAGS305	STU	Advanced Architectural Design Studio- III	0	12	0	12	12	0	150	150	300
Total				9	18	0	27	27	300	350	250	900

Subject Code/Category Abbreviation

MAGT : Master of Architecture General Theory
MAGE : Master of Architecture General Elective.
MAGS : Master of Architecture General Studio.

TH: Theory T : Theory Paper
ELV: Elective IP: Internal Progressive
STU: Studio EV: External Viva

Minimum marks for Pass :

Theory Paper: 45 %
Internal Progressive : 50%
External Viva : 50 %

SHIVAJI UNIVERSITY ,KOLHAPUR

Scheme of Teaching and Examination of Semester - IV Master of Architecture (General) 2018

Sr. No	Subject code	Category	Title of Subject	Period per week (1Period = 50 mins)				Scheme of Examination				
				Lecture	Studio	Practical	Total	Duration (Hrs)	Theory (TP)	Prog Marks (I P)	Viva Marks (EV)	Total
01	MAGT401	TH	Advanced Services in High Rise Buildings	3	0	0	3	3	100	50	0	150
02	MAGT402	STU	M-arch Dissertation Stage- II	0	24	0	24	24	0	300	300	600
Total				3	24	0	27	27	100	350	300	750

Subject Code/Category Abbreviation

MAGT : Master of Architecture General Theory
MAGE : Master of Architecture General Elective.
MAGS : Master of Architecture General Studio.

TH: Theory T : Theory Paper
ELV: Elective IP: Internal Progressive
STU: Studio EV: External Viva

Minimum marks for Pass :

Theory Paper: 45 %
Internal Progressive : 50%
External Viva : 50 %

COURSE CODE	MAGT101
CATEGORY	TH – THEORY
SUBJECT	CONTEMPORARY ARCHITECTURE
CONTACT PERIODS	03 hr
PROGRESSIVE MARKS	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	03

OBJECTIVE

- Develop an awareness of contemporary architecture.
- Update their comprehensive knowledge of architecture.

UNIT OUTLINE

UNIT 1: Evolution through the formal and the informal built-form, forces that shaped both. Cross connections showing form determining factors. Manifestations and significant theories, pragmatic and the abstract. Theories seen independently of the styles as classified later in history. Brief review of state of art of designing and the theories of Design and Architecture studied during the B. Arch. degree program, with emphasis on 20th century up to present period.

UNIT 2 : Influencing factors in the shaping of contemporary architecture , study of examples of modern structures in this period and analyze the influences with respect to Advances in Construction Technology and new materials of construction.

UNIT 3: Influencing factors in the shaping of contemporary architecture study of examples of modern structures in this period and analyze the influences with respect to Advances in Digital Technology and its use in visualization, simulation and application techniques.

UNIT 4: Influencing factors in the shaping of contemporary architecture ,study of examples of modern structures in this period and analyze the influences with respect to awareness and application of sustainability and impact on environment.

UNIT 5 : Influencing factors in the shaping of contemporary architecture ,study of examples of modern structures in this period and analyze the influences with respect to , Architectural expression influenced by vernacular and regional Architecture.

UNIT 6 : Influencing factors in the shaping of contemporary architecture , study of examples of modern structures in this period and analyze the influences with respect to, Architectural expression influenced by world as a global village

OUTCOMES

- Knowledge about contemporary phase of architecture .
- Understandings of current trends and styles in architecture.

REFERENCE BOOKS

- 1 : The language of post modern Architecture by Charles Jencks.
- 2: Modern Architecture since 1900 by William J. Curtis
- 3: Intentions in Architecture by Norberg Schulz C
- 4: Design and Technology in Architecture by Guise D
- 5: Contemporary Indian Architecture : After the Masters by Bhatt V and Scriver P.

COURSE CODE	MAGT102
CATEGORY	THE - THEORY
SUBJECT	MASS HOUSING
CONTACT PERIODS	03 hr
PROGRESSIVE MARKS	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	03

OBJECTIVE

- To understand the role of housing and its importance in Habitat Design.
- To explore the policy aspects and finance mechanism in housing.

UNIT OUTLINE

- UNIT 1 :** Housing concepts, definitions and components of housing. Role of housing in socio-economic development of the nation, housing in relation to non-residential components of settlement. Housing norms and standards. Mass housing for higher income group or combinations of income groups in Urban areas. Housing stress diagrams, stressed communities.
- UNIT 2:** Social impacts of planned housing. Role of NGOs and self-help groups. Sustainability of social and public housing – Planning, Design, Materials, Technology.
- UNIT 3:** The role of government as a developer, financier and policy maker to be critically assessed in the era of privatization in the housing sector. Housing scenario in India, National Housing Policy, Role of HUDCO, State Housing Boards.
- UNIT 4:** Rehabilitation / transit accommodation /camps for people affected by natural disasters like earthquake, floods, refugees, or other disasters
- UNIT 5:** Housing Finance- Role of NHB and other financial Institutions. Mechanisms for housing loans for various income groups & industry. Role of private sector in housing infrastructure development. Impact of globalization. Effect of global capital participation in housing & urban infrastructure sector.
- UNIT 6:** Case Study on Old Age people Housing and Slum Improvement schemes, Occupational Housing schemes by Government / private sector organizations.

OUTCOMES

- Deep understandings of housing scenario in relative context.
- Getting knowledge about housing demands and future of mass housing.

REFERENCE BOOKS

- 1 : P. K.Sarkar -Housing laws in India – Problems and Remedies.
- 2: Kavita Datta and G.A.Jones - Housing Finance In Developing Countries.
3. Cedric Pugh - Housing and Urbanization.
4. P K Guha -Housing- AN Indian Perspective.
5. K Ranga Rao & M S A Rao -CITIES & SLUMS - A study of squatters' settlement in the city of Vijayawada.
6. Geoffrey Kayne- Urban Housing in the 3rd world.
7. N V Modak- Town and Country Planning and Housing.
8. A.Karan- The ownership and Management of housing in the New Town.
- 9: Housing By Macsai John.
- 10: Population and Housing problems in IndiaVol. I & II Maurya S. D.
- 11: The social impact of housing goals standards.
- 12: G.I.C. :An Introduction to housing layout.

COURSE CODE	MAGT103
CATEGORY	THE - THEORY
SUBJECT	URBAN DESIGN
CONTACT PERIODS	03 hr
PROGRESSIVE MARKS	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	03

OBJECTIVE :

- To introduce and enable understanding various aspects of urbanism through historical and theoretical perspectives.
- To understand issues of contemporary urban form.
- To study about urban design interventions.

UNIT OUTLINE

UNIT 1 : Introduction to origin and evolution of cities and urbanism- historic review of the development of the urban design discipline and principles. Introduction to urban design, relationship between urban design, architecture and urban planning objectives and scope of urban design.

UNIT 2 : Introduction of Elements of urban design, urban morphology, urban form, urban mass, urban space. Some basic urban design principles and techniques. Introduction to different ways of reading and interpreting the urban fabric/ city such as image ability, type, phenomenology.

UNIT 3 : Introduction to various issues and aspects that impinge on the urban condition today such as globalization, digital revolution, contemporary processes, sustainability, splintering urbanism through changes in information and communication networks and transportation.

UNIT 4 : Brief overview of Legislation and Development control with respect to the Regional plan, Development plans, Land-use, Density control, environmental impact, affecting Urban Design. Sustainable development– Sustainable Cities Program - Revitalization of brown field sites- Transit Metropolis.

UNIT 5 : Contemporary Processes in Urban Design- Place making in the Digital Age – Reconfiguring Public realm – Urbanization and Excursions on density.

UNIT 6 : Case study / appraisal of an Urban center / central business district /Town center in view of the above issues related to Urban Design.

OUTCOMES

- Awareness of urbanism as a phenomenon.
- Knowledge about different ways of addressing urban issues.

SEMESTER – I M-ACRH (GENERAL) DETAILED SYLLABUS

MAGT103

URBAN DESIGN

REFERENCES

1. A.E.J. Morris, History of Urban Form before the Industrial Revolution, Prentice Hall 1996
2. Edmund Bacon, Design of Cities , Penguin, 1976
3. Gordon Cullen, The Concise Townscape, The Architectural Press, 1978
4. Kevin Lynch, Image of the City, MIT Press 1960.
5. Christian Norberg Schulz- Towards a Phenomenology of Architecture, Rizzoli New York, 1980
6. Jonathan Barnett, An Introduction to Urban Design
7. Gosling and Maitland, Urban Design, St. Martin's Press, 1984
8. William J. Mitchell, City of Bits: Space, Place and the infobahn, MIT Press, 1996.
9. Charles Correa, Housing and Urbanisation, Thames and Hudson, 1999
10. Donald Appleyard, Kevin Lynch, John R. Myer, The View from the Road, MIT Press 1965
11. Peter Calthorpe, The Next American Metropolis, Princeton Architectural Press, 1993
12. Thomas A, Horan, Digital Places: Building our city of bits, Urban Land Institute, 2000
13. Tridib Banerjee, Anastasia Loukaitou- Sideris, Companion to Urban Design, Routledge 2014
- 14: Design of cities Bacon, By Edmund. Publisher N Thames and Hudson Ltd. London.
- 15: Emerging Concepts in Urban Space Design By Broadbent. G . Publisher Van Nostrand Reinhold N Y
- 16: Concept of Urban Design By Gosling D & Mattes .
- 17: Urban Design The Architecture of Towns and Cities, By Sprieregen Paul D.
- 18: Pattern Language series by Christopher Alexander.

COURSE CODE	MAGE104
CATEGORY	ELV - ELECTIVE
SUBJECT	ELECTIVE – I : VERNACULAR ARCHITECTURE
CONTACT PERIODS	03 hr
PROGRESSIVE MARKS	1 50
EXAM MARKS	-
TOTAL MARKS	150
CREDITS	03

OBJECTIVE :

- Identify and conserve the untapped values and principles in the evolution of new theories for architectural creations
- Highlight needs and various ways of vernacular building research, analysis, presentation of finding and its application to contemporary buildings.

UNIT OUTLINE

- UNIT 1 :** Introduction to Vernacular architecture it's nature, purpose and scope. Analytical review classification, salient features and important contributions in evolving workable solutions. Study of examples of Vernacular architecture in history of world architecture (outside Indian subcontinent) to understand evolution of building forms based on functions, building materials and construction techniques, art & crafts, the local conditions, traditions, climate & geography, religion & culture in the period when they were built.
- UNIT 2 :** Case study/ies of works of architects in contemporary world architecture (outside Indian subcontinent) whose works are influenced by the Vernacular Architecture of the region.
- UNIT 3 :** Introduction to Vernacular architecture it's nature, purpose and scope. Analytical review classification, salient features and important contributions in evolving workable solutions. Study of examples of Vernacular architecture in history of architecture in Indian subcontinent; to understand evolution of building forms based on functions, building materials and construction techniques, art & crafts, the local conditions, traditions, climate & geography, religion & culture in the period when they were built
- UNIT 4 :** Case studies of works of architects in contemporary Indian architecture, whose works are influenced by the Vernacular Architecture of the region.

OUTCOMES

- Understanding of vernacular living aspect of architecture.
- Getting update theory of topicality in vernacular aspect.

SEMESTER – I M-ACRH (GENERAL) DETAILED SYLLABUS

MAGE104

ELECTIVE – I : VERNACULAR ARCHITECTURE

REFERENCES

- 1: Vernacular Architecture: An Illustrated Handbook By R.W. Brunskill 4th ed 2000 Publisher Faber and Faber
- 2: Architecture Without Architects: A Short Introduction to Non-pedigreed Architecture by Bernard Rudofsky
- 3: Bhatia, Gautam, Laurie Baker, Life, Work, Writings, New Delhi, India, 1994 Publisher Penguin Books,.
- 4: Voluntary Agencies and Housing: A Report on Some Voluntary Agencies Working in the Field of Housing in India, by Madhao Achwal. Published 1979 UNICEF .
- 5: Handmade Houses and Other Buildings The World of Vernacular Architecture
By John May 2010 Thames & Hudson .
- 6: Hassan Fathy- Architectural Monographs, By James Steele 1988 St. Martin's Press

SEMESTER – I M-ACRH (GENERAL) DETAILED SYLLABUS

MAGS105

LANDSCAPE DESIGN

COURSE CODE

MAGS105

CATEGORY	STU – STUDIO
SUBJECT	LANDSCAPE DESIGN
CONTACT PERIODS	06 hr
PROGRESSIVE MARKS	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	03

OBJECTIVE :

- Understand land use development in terms of its natural characteristics, and provide analysis and recommendations for ecological renewal and development through appropriate design interventions
- To study the social and cultural influences on traditional landscapes through analysis of form and space, siting principles of each period with examples.
- To study contemporary landscape and the manifestation in the western and Indian context.

UNIT OUTLINE

UNIT 1 : Brief review of Landscape design studied during the B. Arch. degree program.

UNIT 2 : Landscape and its relation to climate, topography, drainage subsoil, vegetation and their co-relation. Elements and Materials Landscape, their effect on visual and spatial organization in terms of environmental quality for human living

UNIT 3 : Renaissance and the evolution of new thoughts , Development of the enclosed garden in the Middle ages. Renaissance – Italy, France and England, Romanticism. Influences and linkages across cultures. Study of the western landscapes till the nineteenth century.

UNIT 4 : The evolution of modern landscape , Industrialization and urbanization – impacts and development of the concept of public open spaces, open space development in new towns, parks movement. Open space development and its urban design and planning context, Early industrial towns and the garden city movement. Public park as a major component of urban landscape, the works of F.L.Olmstead, and other pioneers. Open space development and Close conceptual relationship between Town planning, urban design and landscape architecture. Examples.

UNIT 5 : Issues in contemporary India, Analysis and understanding of philosophies of contemporary landscape works in India, case studies.

UNIT 6 : Case study / appraisal of Landscape design of an Urban center / central business district /Town center in view of the issues referred in unit 4 & 5 above and design of public spaces, street furniture, etc.

OUTCOMES

- Gaining knowledge of landscape a part of living architecture.
- Importance of landscape in urban slot.
- Relationship between culture and Landscape design.
- Perception of open spaces in different cultures.

REFERENCES

- 1) Site Planning by Anne Beers
- 2) Neighborhood Planning by Clara & Anne Beers.
- 3) Landscape of Man by Geoffrey Jellicose
- 4) Time Saver Standards for Landscape Planning
- 5) Geoffrey and Susan Jellicoe, The landscape of Man, Thames & Hudson Publication, 1995
- 6) Robert Holden, New landscape Design, Lawrence king publishing, UK, 2003
- 7) Penelope Hill, Contemporary history of garden design, Birkhauser publishers, 2004
- 8) Elizabeth Barlow Rogers, Landscape Design – A Cultural & Architectural History, Hary & Abram inc. publishers, 2001.
- 9) Phillip Pregill & Nancy Volkman, Landscapes in History, Van Nostrand publishers, 1993.
- 10) Jonas Lehrman, Earthly Paradise- Garden and courtyard in Islam, Thames and Hudson, 1980.
- 11) G.B. Tobey, A history of American Landscape architecture, American elsevier Publishing Co., NY, 1973.
- 12) Pieluigi Nicholin, Francesco Repishti, Dictionary of today's landscape designers, Skira Editores P.A, 2003.

CATEGORY	STU – STUDIO
SUBJECT	ADVANCED ARCHITECTURAL DESIGN STUDIO – I
CONTACT PERIODS	12 hr
PROGRESSIVE MARKS	150
EXAM MARKS	150
TOTAL MARKS	300
CREDITS	06

OBJECTIVES

- Acquire a comprehensive base of knowledge required for the practice of architecture. Develop awareness in physical context about implications of limited sources in design decision making.

Design Project of a large magnitude in one of the categories or a similar development typology below:

- Mass Housing.**
- Urban Design.**

To engage in architectural design in the context of the city. The studio will focus on architecture as being shaped by and shaping the urban context & urban mass. The process of architectural design would be seen along with the aspects such as nature of cities, urban morphology, history, place, Housing density, society, public realm, economy, climate, ecology, legislation, finance. The design projects would become the site for taking positions on specific issues and developing these ideas to completion.

An in-depth research and analysis of activities below to evaluate the progress of work:

- Need / Demand of the project considering socio-economic conditions
- Geography, local conditions and Climatic conditions
- Special design considerations for the user
- Development control legislations
- Amenities for the residential / urban development
- Case studies to substantiate the design philosophy
- Impact of the development on adjacent neighborhood
- Evolving Design Brief for the Project
- Deriving typical modules for dwelling types by understanding of Hierarchy & Class.
- Architectural Design project

OUTCOME

- An ability to design buildings as positive additions to the city.
- Students would be made aware of the emerging technical areas of architecture.

OUTCOME

- Students would get an understanding of designing optimally, balancing the basics of architectural design with emerging new technical and planning parameters.
- The final project work will include Architectural drawings & relevant details, case studies,

COURSE CODE	MAGT201
CATEGORY	TH - THEORY
SUBJECT	RESEARCH METHODOLOGY IN ARCHITECTURE
CONTACT PERIODS	03 hr
PROGRESSIVE MARKS	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	3

OBJECTIVE :

- To understand importance of research in architecture and the theoretical and practical significance of research, types of research in process of formulating a research plan, various methods of research, their applications, data and simple statistical analysis, interpret and infer from the data.
- To introduce the students to the importance of critical inquiry as a way of gaining knowledge and adding to it through research.
- To expose the students to the various forms of research and research methodologies/ processes.
- To understand methods of technical writing and presenting a research report.

UNIT OUTLINE

UNIT 1 : Introduction to “research” and its significance in architecture – meaning of research. Relationship between design and research. Types of research in architecture, areas research in architecture, qualitative and quantitative paradigms.

UNIT 2: Research Design: Components of research design – formulating the research questions, hypothesis, choosing the sample, methods of data collection, analyzing the data and inferring from the data. Concepts of dependent and independent variables, unit of analysis. Defining the scope and limitations of a research plan, significance of the research outcome. Preparing time schedule & budget for a research plan.

UNIT 3: Literature Study and Research: Significance of literature study in research, different sources of information such as books, journals, newspapers, internet, magazines, audio-recordings, etc. Referencing and documenting the bibliography.

UNIT 4: Methods of Research in Architecture: Interview Techniques: Questionnaires /Face to face Interviews / Internet survey. Designing a Questionnaire / Interview schedule. Visual Techniques: Observations (participant / non-participant / direct), activity mapping, accession/erosion trace observations, cognitive maps, etc

SEMESTER – II M-ACRH (GENERAL) DETAILED SYLLABUS

MAGT201

RESEARCH METHODOLOY IN ARCHITECTURE

UNIT 5: Analysis : Content Analysis: Secondary data analysis: Understanding the relative advantages,

disadvantages and application of various methods mentioned above and choosing a method appropriate for a research to achieve its objectives. Data Documentation and Analysis: Understanding the nature of data collected and methods of analysis suitable for that data (graphical / numerical / descriptive). Converting data into numerical form for data analysis.

UNIT 6: Introduction to the Statistics: Introduction to the simple statistical methods of analyzing numerical data – frequencies / percentages, mean / median / mode, correlation, chi square test – inferring from the data and interpreting the meaning of those inferences. Use of MS Excel for statistical data analysis.

UNIT 7: Presentation & Reporting: Presentation of the Data: Techniques of presenting the numerical data – graphical (pie charts, bar charts, line graphs etc.), tabulations, verbal qualitative data, architectural drawings / maps. Reporting the Research : Different sections of a research report, technical writing and language (tense, voice, etc.), formatting of a report.

OUTCOMES

- The student will develop the skill to identify, decipher and interpret issues relating to architecture based on research enquiry methods.
- The student will gain knowledge of different methods of conducting research and research writing

REFERENCES

- 1: Linda Groat and David Wang; Architectural Research Methods – 2nd edition ‘,John Wiley & Sons Inc,Hoboken,New Jersey, US , 2013.
- 2: Ranjith Kumar; Research Methodology- A step by step guide for beginners-3rd Edition ; Sage Publications;2011
- 3: John W Creswell; Research design: Qualitative, Quantitative and Mixed Methods Approaches; Sage Publications; 2011.
- 4: The Practice of Social Research Babbie, E. 3rd Ed.1983 Belmont :Wadsworth Publishing Co..
- 5: Research Design: Qualitative, quantitative and mixed methods approaches By Creswell, J. W. 2nd Ed 2003. Thousand Oaks : Sage
- 6: Surveys in Social Research, Jaipur By De Vaus, D. A 2003 Rawat Publications.
- 7: Qualitative Data Analysis : A User Friendly Guide for Social Scientists By Dey, I 1993 London : Routledge .
- 8: Research Methodology : Methods and Techniques By Kothari, C.R. 2005 New Delhi : Wishwa Prakashan.
- 9: Research Methods in the Social Sciences By Nachmias, C. F. and Nachmias, D. 5th Ed 1996 Great Britain: St. Martin’s Press Inc.
- 10: Handbook of Qualitative Research By Norman K Denzin and Yvonna S Lincoln (Eds.) 1994. Thousand Oaks : Sage Publications .

REFERENCES

- 11: Qualitative Evaluation Methods By Patton, M. Q. 1980 Sage Publications .
- 12: Methods of Architectural Programming By Sanoff, H 1977 Dowden Hutchinson and Ross, Inc. Vol. 29, Community Development Series .
- 13: Visual research methods in design By Sanoff, H 1991 USA : Van Nostrand Reinhold.
- 14: Interpreting Qualitative Data : Methods for Analysing Talk, Text and Interaction By Silverman, D. 1993 , London: Sage Publication.
- 15: Behavioral Methods in Environmental Design By William Michelson (ed.) 1982 Stroudsburg, Pennsylvania : Dowden Hutchinson and Ross. Inc.

COURSE CODE	MAGT202
CATEGORY	TH - THEORY
SUBJECT	HUMAN HABITAT STUDIES & PLANNING THEORY
CONTACT PERIODS	03 hr
PROGRESSIVE MARKS	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	3

OBJECTIVE :

- To introduce the students to the concept of holistic Habitat Design with Socio economic and Historic determinants and dimensions of urban design and planning.
- To introduce the basic concept of urban planning in terms of tools and methods and their application in modern context.

UNIT OUTLINE

UNIT 1 : Components of human habitat, Evolution of cities and towns in India, Socio economic and Historic determinants of urban growth and urban form. Reading the city. Social structure, cognition, experience and urban form. Dimensions of urban design.

UNIT 2 : Habitat Design, Urban Design and their relation with planning and architecture. Views of Design of habitat as extension architecture (mega architecture) and as architectural expression of planning.

UNIT 3: Evolution of concepts of urban form and design in different cultures and in India. Utopian concepts. Concepts in urban Design and planning. Rise of Advocacy Planning, changing role of NGOs and Urban Social Movement in India. Urban design survey - inventories; techniques/approaches to urban design. Image ability, townscape and elements of urban design (Gordon Cullen, Kevin Lynch) Historical examples of urban design projects.

UNIT 4 : Planning terms and definitions. Basic principles of planning of settlements. Aims and Objectives of Physical Planning, Levels of Planning in India, Characteristics of Planning, Models of the Planning Process, Components of settlement structure

UNIT 5 : Preparation of Urban Development Plans, types, scope, purpose, contents and approaches to the interim and comprehensive plans: Structure Plan, Master Plan, Zonal Development Plan, and Strategic Planning.

SEMESTER – II M-ACRH (GENERAL) DETAILED SYLLABUS

MAGT202

HUMAN HABITAT STUDIES & PLANNING THEORY.

UNIT 6 : Theories of Urban structure, Urban Sub-systems. Concepts of Urban Land use, Systems affecting land uses and rationale for land use planning, Locational attributes of urban land uses. Legal frame work, Regulations, byelaws, standards and norms and their basis.

OUTCOMES

- Gaining deep knowledge of planning theory in its relative context and system approach to human habitat.

REFERENCES

1. Kevin Lynch- Imageability of City
2. Camillo Sitte -City Planning according to Artistic principles
3. Kevin Lynch -Good City Form
4. Rob Krier -Urban street and Squares
5. Gordon Cullen -Townscapes
6. Time-Savers Standards for Urban Design
7. Arthur Gallion - Urban Pattern
8. Siddhartha N.Mukherjee -Cities -Urbanization and Urban System
9. Peter Hall -Urban and Regional Planning
10. K.P.Yadav, Vol 1-5- Encyclopedia of Economic Planning and Development

COURSE CODE	MAGT203
CATEGORY	TH - THEORY
SUBJECT	URBAN INFRASTRUCTURE DEVELOPMENT & ENVIRONMENTAL LAWS.
CONTACT PERIODS	03 hr
PROGRESSIVE MARKS	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	3

OBJECTIVE :

- To familiarize the student with legal terminology and legal frameworks that apply in Urban context

UNIT OUTLINE

UNIT 1 : Introduction to laws, concepts – sources of law, meanings terms- Law, Legislations, Ordinances, Bills, Acts, Regulations and bye-laws. Evolution of Planning and Legislation in India. An overview of legal tools connected with Urban Planning & Development, Town and Country Planning, Improvement Trust and Development Authorities etc. - objectives, contents and procedures for preparation and implementation of Regional plans, Development plans, Town Planning Schemes, Area Plans.

UNIT 2 : Legislation related to use and control of land, land acquisition. Significance of land development control – Objectives and legal tools, critical evaluation of zoning, sub division regulations, building regulations and bye-laws, development code.

UNIT 3 : Legislation on Conservation of natural resources including Mining and Forestry Acts, Conservation and Management of Ancient Monuments and Archaeological sites and ruins. Coastal Zone Regulations, Transfer of Development Rights – Concepts and related issues.

UNIT 4 : Environment Management Systems (ISO – 14001 and its planning implications, Need of ISO, case studies of ISO certified industries, Environmental and Financial Benefits of ISO), Green rating systems and building evaluation methods.

UNIT 5 : Concepts in urban infrastructure- Social and physical infrastructure. Urban social infrastructure - qualitative and quantitative techniques of assessing requirements, Planning Amenities and institutions. Urban physical infrastructure- qualitative and quantitative techniques of assessing requirements with emphasis on water supply, sewerage, solid waste, storm water.

SEMESTER – II M-ACRH (GENERAL) DETAILED SYLLABUS

MAGT203

URBAN INFRASTRUCTURE DEVELOPMENT & ENVIRONMENTAL LAWS

UNIT 6 : Institutions and instruments of resource mobilization. Public and private sector role in resource

mobilization and infrastructure development and related issues. Financing systems, sources of finance, leasing and contracting methods, pricing and financing, major National and International agencies involved. Quality control mechanism.

UNIT 7 : Introduction to urban management. Evolution and structure of urban development bodies. Concepts of decentralization of development and management. Managing Infrastructure development, corporatization and related goals, decentralized and people led infrastructure provisions, social goals and equity, environmental and economic issues and assessments related to physical infrastructure

OUTCOMES

- To understand importance of environmental laws in urban development.
- Key action plans of infrastructure planning in modern architecture & planning.

REFERENCES

1. Government of India, UDPFI Guidelines.
2. The Karnataka Government Town And Country Planning Act.
3. National Building Code.
4. Herbert Girardet-The GAIA Atlas of Cities.
5. C S Yadav- URBAN PLANNING AND POLICIES -Volume 16-A -Part A: Reorientation of Policy Norms.
6. S. Kostoff. The City Shaped. London: Thames and Hudson, 1991.
7. Kevin Lynch: City sense and city design
8. Eduardo Vasconcellos -Urban Transport, Environment and Equity
9. B.G.Hutchinson -Principles of Urban Transport Systems Planning .

SEMESTER – II M-ACRH (GENERAL) DETAILED SYLLABUS

MAGE 204

ELECTIVE- II : SUSTAINABLE ARCHITECTURE

COURSE CODE

MAGE204

CATEGORY	ELV - ELECTIVE
SUBJECT	ELECTIVE –II : SUUSTAINABLE ARCHITECTURE
CONTACT PERIODS	03 hr
PROGRESSIVE MARKS	1 50
EXAM MARKS	-
TOTAL MARKS	150
CREDITS	03

OBJECTIVE :

- To sensitize the students to the importance of sustainable design
- To make students aware of the ways to sustainable design.
- To help student develop analytical abilities in the evaluation of buildings with respect to sustainability.

UNIT OUTLINE

UNIT 1 : Basics of ecology, ecosystems, energy and material cycles in nature- function of ecosystem-Attitudes to sustainable architecture: a historical perspective- Concept of Sustainability and Sustainable Development - Carrying capacity, methods of assessing carrying capacity, ecological foot print, carbon foot print, life cycle analysis, EIA- Global and local environmental issues- climate change, global warming, loss of bio-diversity, urban heat islands- Impact of construction sector on environment; Need, general premises and strategies for sustainable and green design

UNIT 2: Settlement level planning, Urban ecology, Urban planning considerations- Building and its interactions with the environment, general principles for minimizing environmental impact of buildings- Eco-mimicry as a design tool based on ecosystem analogy- The form of the house: the building as an analogy- Site planning considerations, working with climate: passive design principles, building envelope design, indoor environment quality- case studies

UNIT 3: Energy management in buildings –reducing demand- relying on renewable energy- net zero/ energy plus buildings - photovoltaic's and solar hot water systems- small scale wind systems and hydro power- Water management in buildings- water saving / demand management, water harvesting for recharge and use, reuse/ recycling

UNIT 4: Impact of building materials- calculating embodied energy- impact of recycling, processing and time on embodied energy- embodied energy of different building materials- considerations for choice of materials for low energy- life cycle analysis- optimizing construction, site management, post occupancy building management- Adaptive reuse, Brown field site development, construction and demolition waste management.

UNIT 5: Definitions of Green Building - Green Building Evaluation Systems: LEED, GRIHA- Legal instruments/ incentives for sustainable buildings - Post occupancy performance evaluation of buildings- Case studies of buildings and analysis of their performance with respect to principles of sustainability

UNIT 6: Case studies of works of architects in organic / contemporary Indian architecture; whose works are influenced by the Sustainable Architecture of the region.

OUTCOMES

- An understanding on sustainability as applicable to architecture and planning.
- Knowledge on renewable energy and energy conservation through material usage.
- Ability to critically analyses buildings with respect to sustainability.

REFERENCES

1. Ken Yeang; Eco design - A Manual for Ecological design, Wiley- Academy,2006
2. Sue Roaf et al; Ecohouse: A design Guide; Elsevier Architectural Press, 2007
3. Thomas E Glavinich; Green Building Construction; Wiley, 2008
4. Brenda and Robert Vale; Green Architecture- Design for a Sustainable Future; Thames and Hudson, 1996.
5. Daniel Vallero and Chris Brasier; Sustainable Design- The science of sustainability and Green Engineering; Wiley,2008

COURSE CODE	MAGS 205
CATEGORY	STU - STUDIO
SUBJECT	HERITAGE CONSERVATION & DOCUMENTATION.
CONTACT PERIODS	06 hr
PROGRESSIVE MARKS	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	03

OBJECTIVE :

- Introduced to the role of conservation architects, types and methodology of architectural conservation with team of experts from fields related to architectural conservation.
- To develop awareness and understanding of importance of Documentation, Research and Surveys practice of architecture .

UNIT OUTLINE

UNIT 1 : Introduction to architectural conservation of buildings of importance – definition nature, purpose and scope. Values in conservation; Ethics of conservation building conservation legislation etc.

UNIT 2 : Preparatory procedure for conservation , Inventories, inspection, documentation; degree of intervention for prevention of deterioration, prevention of existing state, consolidation of the fabric, restoration, rehabilitation, reproduction, reconstruction etc. Structural aspects of building to study structural elements such as beams, arches and domes; thumbs and walls, piers and columns, foundation etc. Causes of decay in buildings by natural and human factors, Disasters, Botanical, Biological and Microbiological causes.

UNIT 3 : Conservation procedure - the work of conservation Architect and his team of coworkers: inspection documentation and reports, Research, analysis, Preventive maintenance, fire and security, cost control, special skills in arts and crafts.

UNIT 4 : Purpose of Documentation, To Record Existing structure, to aim at conservation of the structure, etc. Selection of the project: Heritage documentation, Monograph of an Architect, Contemporary project. Research, historical research related to Styles and contemporary works, influence of culture and Technology, context etc.

UNIT 5 : Geodetic survey: Topographic maps, road maps, site maps etc. Architectural survey: survey Methodology, physical measure drawings, Photographic survey, Digital Architectural Photogrammetric, 2 D & 3D digital drawings, etc.

OUTCOMES

- Case study / appraisal of Conservation / Documentation project of a medium size in view of the above issues referred in unit 1 & 4 above.
- The final presentation shall be a document of a small Architectural example or part of the structure, where the content will cover various issues mentioned above

REFERENCES

- 1) An introduction to conservation by Feildon B. M. UNESCO Paris
- 2) Conservation of Building by I. H. Harvey
- 3) A critical bibliography of Building Conservation By Smith I. H.
- 4) A Concise History Of India. By Metcalf, University Of California.
- 5) Conserving The Living Culture: Lessons From Little India. Yushi Utaka, Univ. Science Of Malaysia & Hiroshima Univ.
- 6) The Culture And Civilization Of Ancient India In Historical Outline, D. D. Kosambi
- 7) Identification and Documentation of Built heritage in India, BY Divya Gupta, INTACH
- 8) Conservation And Rehabilitation Of Urban Heritage In Developing Countries

SEMESTER – II M-ACRH (GENERAL) DETAILED SYLLABUS

MAGS206

ADVANCED ARCHITECTURAL DESIGN STUDIO – II

COURSE CODE	MAGS206
CATEGORY	STU – STUDIO
SUBJECT	ADVANCED ARCHITECTURAL DESIGN STUDIO – II

CONTACT PERIODS	12 hr
PROGRESSIVE MARKS	150
EXAM MARKS	150
TOTAL MARKS	300
CREDITS	06

OBJECTIVES

- Acquire a comprehensive base of knowledge required for the practice of architecture. Develop awareness in physical context about implications of limited sources in design decision making.

Design Project of a large magnitude in one of the categories or a similar development typology below:

- Urban Infrastructure development & Environmental Laws.**
- Architectural Conservation & Documentation.**

To engage in architectural design in the context of the city. The studio will focus on architecture as being shaped by and shaping the urban context & urban mass. The process of architectural design would be seen along with the aspects such as nature of cities, urban morphology, history, traditions, place, Housing density, society, public realm, Infrastructure, economy, conservation, environment, climate, ecology, legislation, finance. The design projects would become the site for taking positions on specific issues and developing these ideas to completion.

An in-depth research and analysis of activities below to evaluate the progress of work:

- Need / Demand of the project considering socio-economic conditions
- Geography, local conditions and Climatic conditions
- Special design considerations for the user & city as a heritage character.
- Development control legislations / Conservation / Documentation Guidelines.
- Amenities for the urban / Infrastructure development.
- Case studies to substantiate the design philosophy
- Impact of the development on adjacent public amenities.
- Evolving Design Brief for the Project
- Socio- cultural & Historical background of the context.
- Infrastructure development planning
- Environmental Acts, conducts formed.
- Architectural Design project.

OUTCOME

- An ability to plan infrastructural buildings in positive additions to the city.
- Preservation & documentation of culture and history of respective region.

SEMESTER – III M-ACRH (GENERAL) DETAILED SYLLABUS

MAGT301

FINANCE & REAL ESTATE MANAGEMENT

COURSE CODE	MAGT301
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CATEGORY	TH - THEORY
SUBJECT	FINANCE & REAL ESTATE MANAGEMENT
CONTACT PERIODS	03 hr
PROGRESSIVE MARKS	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	03

OBJECTIVE

- To understand Factors influencing Location of development, issues like Business Finance, Sources of Finance, Capital Market, Financial Services etc.
- To familiarize students to the Real-estate market mechanisms and their implications on the process of city development and resource mobilization

UNIT OUTLINE

- UNIT 1 :** Business Finance: Estimating the short, Medium and long term financial requirements. Financial Plan- Characteristics & Limitations. Sources of Finance: Private Sector, Public Sector, Co-operative Sector, Govt. Participation, and Foreign Sources.
- UNIT 2 :** Capital Market: Primary and Secondary Capital Market Players. Functioning & Critical Evaluation. Financial Services relating to raising of Capital: Loan policies of Banks, Private, Public, & Government financial bodies. Project Appraisal
- UNIT 3 :** The role of government as a developer, financier and policy maker to be critically assessed in the era of privatization in the housing sector. Housing Finance- Role of NHB and other financial Institutions. Mechanisms for housing loans for various income groups & industry. Role of private sector in housing infrastructure development
- UNIT 4 :** Introduction and history of Real-estate Development. Real-estate market and assessment techniques, economic cycles, demand and supply, values and rental structure, and advertising etc. International investments and the packaging, implications on Real estate market, public-private participation, and Real-estate. development agencies etc.
- UNIT 5 :** Real estate laws, rent control laws, and other legal framework. Investment and risk assessment techniques market surveys and research, rating system in Real-estate market etc. Infrastructure development and quality control post development management and maintenance in Real-estate development.
- UNIT 6 :** Project formulation process , Project physibility report ,Projects based on BOT , Financial management of high capital projects under BOT

OUTCOME

- Getting thro knowledge of financial management in real estate perspective.

REFERENCES

- 1) The Economics of Commercial Property Markets Michael Ball, Colin Lizieri, Bryan D. Macgregor
- 2) Real Estate Market Analysis: A Case Study Approach by Adrienne Schmitz.
- 3) Financial Management –Theory and Practice By Prasanna Chandra Tata McGraw Hill
- 4) Financial Management By I M Pandey Vikas PublishingHouse
- 5) Managerial Finance By J Fred Weston & Thomas E Copeland The Dryden Press, New York.
- 6) Fundamentals of Financial Management By Van Horne J C Prentice Hall, New Delhi.
- 7) Construction Management: Planning & Finance By Cormican D Construction Press, London

COURSE CODE	MAGT302
CATEGORY	TH - THEORY
SUBJECT	ARCHITECTURE LEGALITIES & PRACTICE
CONTACT PERIODS	03 hr
PROGRESSIVE MARKS	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	03

OBJECTIVE

- Acquaint with relevant Acts & Laws related to Architectural Practice in India and Internationally.
- Develop an awareness Significance and Architect's role in profession. Acquaint with relevant Acts & Laws and general Management of Architectural Practice.

UNIT OUTLINE

UNIT 1 : Architects Act 1972 in India – Scope of work, Professional conduct, Scale of fees, etc. Architect's Professional liabilities and responsibilities. Architectural Competitions. Registration and continuation of registration of COA.

UNIT 2 : Regulations, Conditions and requirements of qualification, equivalence etc. for International practice in countries other than India like: USA, UK, Europe, Gulf countries, Asian countries etc.

UNIT 3 : An overview of various Acts relevant to the Architectural profession: Taxation laws like IT, Service Tax, etc .An overview of various Acts relevant to the Architectural profession, like Indian Contract Act etc.

UNIT 4: An overview of the Town Planning Acts of Urban Development ministry of States & Central Government. The rules and regulations for Development Control and the principles behind the framing of these. Regional Plan, Development Plans, at State, District, Urban agglomeration, Municipal Corporations & Councils, Improvement trusts & Regional Development Authorities, CRZs, etc. Procedures for formulations, Implementation and applying for Approvals at various levels. SEZ Development rules under special economic zone, APMC , Industrial corridor development special focus on Industrial Architecture bldg rules & regulations.

UNIT 5: Architects office and office Management. Interaction with the consultants. Design Management Issues. Role & Duties of Architect as an Employer or Employee. Role of Various Statutory / Regulatory bodies in licensing like RIBA, AIA, etc

OUTCOMES

- Getting knowledge about architectural practice under framework of legalities.

REFERENCES

- 1) COA Handbook of Professional Documents
- 2) Income Tax Act
- 3) Service Tax Act
- 4) Environmental Laws
- 5) Indian Contract Act.
- 6) COA Handbook of Professional Documents 2009
- 7) Maharashtra Regional Town Planning Act 1966
- 8) Land Revenue Code 1966
- 9) Professional Practice By Roshan Namavati 2005 , Lakhani Book Depot.
- 10) Professional Practice By Madhav Deobhakta

COURSE CODE	MAGE303
CATEGORY	ELV - ELECTIVE
SUBJECT	TRAFFIC & TRANSPORTATION PLANNING
CONTACT PERIODS	03 hr
PROGRESSIVE MARKS	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	03

OBJECTIVE

- Evaluation of Urban Structure and Transportation, Management of Transportation system, policies in relation to the Environment considerations.
- To introduce the fundamentals of urban transport planning, urban networks and multimodal transport systems developed in response to modern Architecture.

UNIT OUTLINE

UNIT 1 : Evaluation of Urban Structure Transportation systems infrastructure and management, transportation systems and their types, design and operating characteristics, urban road hierarchy planning, engineering and management; criteria for road and junction improvements, arterial improvement techniques. Transportation survey and studies: Study area definitions, surveys and their types, sampling methods, survey techniques; designing O-D and other Traffic and transportation surveys, programming and scheduling, processing of travel data, analysis and interpretation of traffic studies.

UNIT 2 : Management of Transportation system: Existing organizational and legal framework, traffic and environmental management techniques. Management techniques, review of existing traffic management schemes. Framework for evaluation of system option, plan preparation Regional Transport system: Importance of accessibility in regional transport planning. Role of road, rail, air and water transport systems. Regional transport systems, planning road network, planning for micro regions.

UNIT 3 : Transport and Environment: Traffic noise, factors affecting noise, noise abatement measures, standards. Air pollution standards, traffic safety, accident reporting and recording systems. Factors affecting road safety, transport planning for target groups, children, adults handicapped and women. Norms and guidelines for highway landscape, street lighting types, standards and design considerations, transport and environment, EIA of transport project

UNIT 4: Transport policies: Review of national, state and local level transport policies and their relevance in spatial and economic planning, pricing and funding of transport systems, transport technology, energy and environmental implication in transport planning in developing countries; planning for public transportation; planning for bicyclists and pedestrians. Regional road network planning, highway project planning and financing Public transportation planning. Overviews of system technologies, technological options, characteristics choice of technology corridor analysis integrated system plan concept, system selection, legal and institutional provisions, pricing and financing of public transport service

UNIT 5: Scope of urban transport planning, interdependency of transport and land use, stages - system approach to transportation planning. Urban Transportation systems; classification of transport systems; technological characteristics of transport modes and systems; the nature of demand and supply of transport services.

UNIT 6: Parking in transport system, parking surveys, parking norms and standards and new approaches to parking systems. Recent innovations in technologies and its probable impacts on future urban forms. Government transport policies and evaluation of transportation proposals.

UNIT 7: Case studies of noted works of architects / planners influenced by basics of Transportation theory & Practice .

OUTCOMES

- Getting knowledge of importance transit systems in urban planning.
- To know about transport management and transport services thoroughly.

REFERENCES

- 1) Khanna and Justo -Highway Engineering
- 2) Kadiyali L R.-Traffic Engineering and Transportation Planning
- 3) Dimitriou H.T.- Urban Transport Planning and Developmental Approach
- 4) Michael J Bruton,- An Introduction to Transportation Planning
- 5) John Black -Urban Transport Planning and Design.

COURSE CODE	MAGS304
CATEGORY	STU – STUDIO
SUBJECT	M-ARCH DISSERTATION STAGE - I
CONTACT PERIODS	06 hr
PROGRESSIVE MARKS	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	03

OBJECTIVE

- Pursue an idea of research with depth of inquiry, criticality and logic and carry out an in-depth investigation of an area of architecture that he/she is interested in.
- To demonstrate the ability to study and analyze diverse urban issues of varied scale and complexity and conclude with a design solution.
- To expose the students to the various thrust areas in architecture.
- To inculcate the spirit of research in architecture by providing opportunities to read on various issues.
- To expose the students to the finer details of technical writing.
- To provide a platform for a prelude to the ‘Design Thesis

OUTLINE

Dissertation is best expressed as ‘Design in text’. It offers an opportunity to look at the research component in architecture in various thrust areas such as history, theory, design and other value based aspects through texts. Students are encouraged to choose any topic of their interest. This may range from analyzing and a critique of the works of an architect, ideologies and philosophies of architects that get transformed spatially, history, typological architecture, sustainability issues and so on. the dissertation must comprise of an aim, the objectives, the scope and limitations of their dissertation, hypothesis (if any), methodology followed by extensive review of literature through references and documentation. The analysis of the work must be substantiated either empirically or through extensive arguments. A dissertation could also be a Thesis preparation course and gives the student scope for independent study and opportunity to explore specific area of interest which will form the basis of his/ her design thesis project in the next semester. The topic will have to be approved at the start of the semester and reviewed periodically to a jury at the end of the semester

The student will be guided in their work by their selected / appointed guides throughout the three courses to produce an illustrative, written dissertation. The dissertation calls for a substantial impetus on the quality and quantity of output, besides having a thrust on newer and more relevant areas of research / design and plan intervention / application of planning, design and analytical tools and techniques. The choice of subject, formulation of Design Program, Site investigation and selection, and finally culmination in the concrete design demonstration shall depend upon many factors such as student’s personal interest, circumstances and abilities. A careful check shall be made to see that access is available to relevant buildings and to appropriate libraries, record offices, laboratories and other technical resources. Students are expected to complete the project, with critical remarks and assessment from the dissertation guide.

OUTCOMES

- A Dissertation book which is based on accepted norms of technical writing.
- An understanding leading to formation of thesis ideas

COURSE CODE	MAGS305
CATEGORY	STU – STUDIO
SUBJECT	ADVANCED ARCHITECTURAL DESIGN STUDIO – II
CONTACT PERIODS	12 hr
PROGRESSIVE MARKS	150
EXAM MARKS	150
TOTAL MARKS	300
CREDITS	06

OBJECTIVES

- Acquire a comprehensive base of knowledge required for the practice of architecture. Develop awareness in physical context about implications of limited sources in design decision making.

Design Project of a large magnitude in one of the categories or a similar development typology below:

a) Traffic & Transportation Planning.

b) Government addressed buildings (Framed under BOT, Project Physiblity, viability & Legalities)

To engage in architectural design in the context of the city. The studio will focus on architecture as being shaped by and shaping the urban context & urban mass. The process of architectural design would be seen along with the aspects such as nature of cities, urban morphology, history, traditions, place, Housing density, society, public realm, Infrastructure , Transport , economy, conservation , climate , ecology, legislation, finance. The design projects would become the site for taking positions on specific issues and developing these ideas to completion.

An in-depth research and analysis of activities below to evaluate the progress of work:

- Need / Demand of the project considering physical conditions.
- Special focused on government addressing building and its physiblity to serve the economical demands.
- Special design considerations taking understandings of peoples perspective.
- Development control legislations specially for government operative public buildings.
- Strategies for the transport / Infrastructure development.
- Case studies to substantiate the design philosophy
- Impact of the development on adjacent public amenities.
- Evolving Design Brief for the Project
- Transit & Transportation background of the context.
- Preparation of Project Physiblity Proposal & Financial action plans.
- Study Public Issues & Project Prependance.
- Architectural Design project.

OUTCOME

- An ability to plan infrastructural buildings in positive additions to the city.
- Preservation & documentation of culture and history of respective region.

COURSE CODE	MAGT401
CATEGORY	TH - THEORY
SUBJECT	ADVANCED SERVICES IN HIGH RISE BUILDINGS.
CONTACT PERIODS	03 hr
PROGRESSIVE MARKS	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	03

OBJECTIVE

- This course will examine various services in high rise buildings.
- Understand how services integration can translate into an intelligent and energy efficient system which will enable sustainability of the structure.

UNIT OUTLINE

- UNIT 1 :** Standards of high Rise buildings- Indian Standards and Global Standards on High Rise Buildings; Introduction to various services; their significance with regards to High Rise Buildings; Some examples of Buildings and services used in them A brief on evolution of High Rise Buildings. Aspects and Integration of services- Concepts of Intelligence Architecture and Building Automation
- UNIT 2 :** Water supply and waste water collection systems- water storage and distribution systems- Planning and Design- Selection of pumps- rain water harvesting – Sewage collection systems and recycling of water- solid waste disposal . “Some latest Trends Observation, NBC’s recommendations. in these areas can be included.
- UNIT 3 :** Natural and Mechanical Ventilation systems- Air conditioning systems and load estimation- Planning and design for efficiency-Basic concepts- Automation and Energy Management- concepts. Natural lighting systems- Energy efficiency in lighting systems- load and distribution- Planning and Design for energy efficiency- Automation- basic concepts , Glass and Glazing system for natural lighting. Types of elevators, systems and services- Lobby design- Escalators- safety principles, Some latest Trends, NBC’s recommendations
- UNIT 4 :** Security systems- Access Control and Perimeter Protection- CCTV Intruder alarms- Passive fire safety- Fire Detection and Fire Alarm Systems- Planning and Design- NBC- Some latest Trends
- UNIT 5:** Case Studies of High Rise buildings and skyscrapers through appropriate examples.

OUTCOME

- Students can apply some or all of these services in one of their design projects.
- Getting centric knowledge of service base high rise design projects.

REFERENCES

- 1) William J. McGuinness, Benjamin Stein and John S. Reynolds, Mechanical and Electrical Equipment for Buildings, John Wiley & Sons, Inc. 1980.
- 2) Donald Watson, Michael J. Crosbie and John Hancock Callender, Time-Saver Standards for Architectural Design Data, McGraw – Hill International Editions, 1997.
- 3) A K Mittal, Electrical and Mechanical Services in High Rise Buildings Design and Estimation Manual, 2001
- 4) Yahya Mohamad Yatim, Fire Safety Issues in High-Rise Residential Buildings: escape routes Design and specification, Lambert Academic Publishing, 2011
- 5) Johann Eisele and Ellen Kloft, High-Rise Manual, Birkhäuser-Publishers for Architecture, 2003

COURSE CODE	MAGS402
CATEGORY	STU – STUDIO
SUBJECT	M-ARCH DISSERTATION STAGE -II
CONTACT PERIODS	24 hr
PROGRESSIVE MARKS	300
EXAM MARKS	300
TOTAL MARKS	600
CREDITS	12

OBJECTIVE

- To integrate the knowledge gained in the previous semesters with respect to issues/ tools of architectural design at a more advanced level.
- To understand and identify issues appropriate to a particular project or area of architecture, through independent thinking as well as to design in a manner appropriate to the project context.
- Students would be able to integrate various contemporary/ advanced issues and techniques into the architectural design process.
- Students would be able to identify and go in depth into specific and appropriate aspects relating to the discipline of architecture and reflect this in the realm of design.

OUTLINE

The students will synthesize the areas of knowledge, skills and techniques acquired in the various courses of The previous semesters through a thesis project of their choice. This thesis project would be a design project with a strong research component. The project would desirably extend the critical position developed within the theory and studio projects as well as dissertation. The scale of the project could extend from individual site to settlement levels. The initial process shall be rigorous, incorporating background research on the topic, case studies, documentation of project issues, context, site and building information, programming. The process would culminate in design interventions at scales appropriate to the topic. The project shall desirably have the potential to serve as a starting point for practice and/ or further research. Students will submit a detailed proposal on their topic of interest(s). The Proposal shall be approved by the thesis review committee. The thesis project will be reviewed periodically by the review committee. At the end of the semester, the final thesis will be submitted and presented through a viva voce examination before a jury

The student will be guided in their work by their selected / appointed guides throughout the three courses to produce an illustrative, written dissertation. The dissertation calls for a substantial impetus on the quality and quantity of output, besides having a thrust on newer and more relevant areas of research / design and plan intervention / application of planning, design and analytical tools and techniques. The choice of subject, formulation of Design Program , Site investigation and selection, and finally culmination in the concrete design demonstration shall depend upon many factors such as student's personal interest, circumstances and abilities. A careful check shall be made to see that access is available to relevant buildings and to appropriate libraries, record offices, laboratories and other technical resources. Students are expected to complete the project, with critical remarks and assessment from the dissertation guide.