

TEACHING SCHEDULE & SCHEME OF EXAMINATION

IK Gujral Punjab Technical University Kapurthala
Master's of Architecture (M. Arch): Teaching Scheme 2019

First Semester

S. no	Course Code	Course Title	Load Allocations					Credits	Marks	Duration of Univ. Exam/ Viva-Voce
			L	Semi/ Tute	P/ FW	Stu	Total			
1	UC/MARCH-101/19	Studio-I	2	-	-	6	8	8	60 :40	VIVA VOCE/ EXTERNAL JURY
2	UC/MARCH-102/19	Contemporary Architecture-I	2	2	-	-	4	4	40:60	03
3	UC/MARCH-10319	Educational Technology	2	2	-	-	4	4	40:60	03
4	UC/MARCH-104/19	Research Methodology-I	2	2	-	-	4	4	40:60	03
5	UC/MARCH-105-108/19	Elective-I	2	2	-	-	4	4	40:60	03
TOTAL			10	8	-	6	24	24		

Elective- I (Choose any one from the given choices)

- UC/MARCH-105/19 Fundamentals of built environment and resource conservation
- UC/MARCH-106/19 Building Industry
- UC/MARCH-107/19 Architectural Software related to energy/energy simulation
- UC/MARCH-108/19 Architecture Journalism & Photography

IK Gujral Punjab Technical University Kapurthala
Master's of Architecture (M. Arch): Teaching Scheme 2019

Second Semester

S. no	Course Code	Course Title	Load Allocations					Credits	Marks	Duration of Univ. Exam/ Viva-Voce
			L	Semi/Tute	P/ FW	Stu	Total			
1	UC/MARCH-201/19	Studio - II	2	-	-	6	8	8	60:40	VIVA VOCE/ EXTERNAL JURY
2	UC/MARCH-202/19	Contemporary Architecture-II	2	2	-	-	4	4	40:60	03
3	UC/MARCH-203/19	Psychological of Teaching Learning	2	2	-	-	4	4	40:60	03
4	UC/MARCH-204/19	Architecture Research Methodology-II	2	2	-	-	4	4	40:60	03
5	UC/MARCH-205-208/19	Elective II	2	2	-	-	4	4	40:60	03
		Educational Tour/Summer Training/ Vacation Assignment	-	-	-	-	-	-	-	The evaluation will be done in 3rd sem
			10	8	-	6	24	24	-	-

NOTES: Educational Tour of 1 week duration during or after the first year of studies must be undertaken and Summer Training/ Vacation assignment to be given in the intervening period of 2nd and 3rd semester.

Elective- II (Choose any one from the given choices)

- UC/MARCH-205/19 Architecture appreciation
- UC/MARCH-206/19 Geomatics techniques for architects
- UC/MARCH-207/19 Recent trends in sustainable architecture
- UC/MARCH-208/19 Social/ Cultural & Political issues in architecture

IK Gujral Punjab Technical University Kapurthala
Master's of Architecture (M. Arch): Teaching Scheme 2019

Third Semester

S. no	Course Code	Course Title	Load Allocations					Credits	Marks	Duration of Univ. Exam/ Viva-Voce
			L	Semi/Tute	P/ FW	Stu	Total		Int : Ext	
1	UC/MARCH-301/19	Studio - III	2	-		6	8	8	60 :40	VIVA VOCE/ EXTERNAL JURY
2	UC/MARCH-302/19	Dissertation- I	2	2		-	4	4	40:60	03
3	UC/MARCH-303/19	Instructional methods	2	2		-	4	4	40:60	03
4	UC/MARCH-304-307/19	Elective- III	2	2		-	4	4	40:60	03
5	UC/MARCH-308-311/19	Open Elective- I	2	2		-	4	4	40:60	03
6	UC/MARCH-312/19	Educational Tour/Summer Training/ Vacation Assignment						Non-credit	100	No Exam
			10	8		6	24	24		

Note: * UC/MARCH-312/19 is carried out in the intervening period of 2nd and 3rd semester, the evaluation of report/s to be done in the 3rd semester.

Elective- III (Choose any one from the given choices)

UC/MARCH-304/19	Guidance and Counseling
UC/MARCH-305/19	National Policies & Programs on Habitat
UC/MARCH-306/19	Futuristic Architecture
UC/MARCH-307/19	Emerging Technologies in Architecture

Open Elective- I

UC/MARCH-308/19	Health Education
UC/MARCH-309/19	E- Resources
UC/MARCH-310/19	Thought Processes.
UC/MARCH-311/19	Foreign Language

IK Gujral Punjab Technical University Kapurthala
Master's of Architecture (M. Arch): Teaching Scheme 2019

Fourth Semester

S. no	Course Code	Course Title	Load Allocations					Credits	Marks	Duration of Univ. Exam/ Viva-Voce
			L	Semi/Tute	P/ FW	Stu	Total			
1	UC/MARCH-401/19	Teaching Practice (Institutional Experience)	-	2		6	8	8	60 :40	VIVA VOCE/ EXTERNAL JURY
2	UC/MARCH-402/19	Dissertation-II	-	4		12	16	16	40:60	VIVA VOCE/ EXTERNAL JURY
			-	6		18	24	24		

1ST Semester

IK Gujral Punjab Technical University
Masters of Architecture AER

IK Gujral Punjab Technical University
Masters of Architecture AER (M. Arch. AER 1st semester)

Course Code	Course Name	L/S, T, P	Credits	Exam Duration
UC/MARCH-101/19	Studio I	L-2, S-4	6	Viva only

Course Objective: The syllabus has been designed in order to attain the following objectives:

- Understand the Architectural Education system in India.
- To make the students understand the diversity and fast paced dynamics of Architecture profession to be incorporated and adapted in Architecture Education.

Course Outcomes: At the end of the course, the students will able to :

1. They will have a fairly good idea of the scenario of architecture education in the country
2. Understand the basic issues and challenges of imparting architecture Education in India
3. They will also be clear about the perception of society (general public) about the architect and their roles and responsibility

Methodology:

Stress must be laid on individual/ collective research & its presentation in the form seminar in the class & finally getting it published.

Detailed Syllabus:-

UNIT-I (Architecture Education)

Review of Architecture Education in India:

A self-learning exercise is to be introduced on Architecture education scenario in India.

(The students are encouraged through group discussions to raise the issues and then chose any specific issue and do deeper investigation/research on it.) The literature available needs to be reviewed and presented in the class.

Nature and Future Scope of Architecture Education in the country

UNIT- II

Society's perception of Architecture and Architect: A survey needs to be conducted with proper sample size to understand the core issues and presented in the class.

Classroom research on improving the teaching - learning methods

(Understand the traits of a good teacher and fundamentals of Class management)

ASSIGNMENTS

Finally, assignments are to be presented in the form of seminar in the following stages:

Selection of topic and its Understanding (introduction and submission of Synopsis) Preliminary Seminar, Final Seminar, Report Submission Only Seminar Presentations and written reports to be evaluated for the purpose of internal/External assessment.

Students would be require to choose one topic from each Unit in consultation with the subject In charge & thoroughly research it before presenting it in the class as seminar & try to publish it thereafter.

A book review on the topic on the architecture education and related issues should be undertaken as part of internal assessment.

IK Gujral Punjab Technical University
Masters of Architecture (M. Arch. 1st Year)

Course Code	Course Name	L/S, T, P	Credits	Exam Duration
UC/MARCH- 102/19	Contemporary Architecture- I	L-2, S-2	3	03 Hours

Course Objectives:

Study the contemporary architecture of India in general & northern region in particular & the role of materials and technological know now on the final outcome.

Course Outcome: At the end of the course, the students will able to –

1. Understand various trend of contemporary architecture in their immediate surroundings.
2. It will be possible for them to identify & point out various influences (social, political, cultural etc) on the architecture of India in general & northern region in particular.
3. They will understand the impact of globalization and the contribution of material & new technologies in shaping the architecture.

Methodology:

Stress must be laid on individual/ collective research & its presentation in the form seminar in the class & finally getting it published.

Detailed Syllabus:- Overview of Indian architecture in terms of major factors & drivers of architectural form, space, climate & cultural , social, political influences and use of materials and construction techniques related to

Unit I

Medieval Architecture, Islamic Period, Colonial Period/ Pre independence period

Post Colonial Period/ Post independence era

Unit II

Vernacular/ Tradition Indian Architecture and their impact on contemporary scenario.

Unit III

Globalization & it's impact of architecture of through case/net/library studies of eminent architects work.

Unit IV

Live study of contemporary buildings of the immediate surroundings: focus of architecture of northern region

Students would be require to choose one topic from each Unit in consultation with the subject In charge & thoroughly research it before presenting it in the class as seminar & try to publish it thereafter.

Evaluation Criteria for Exam Question Paper Setting:-

Total eight questions are to be set two from each unit & students are required to attempt total four questions i.e. one from each unit.

IK Gujral Punjab Technical University
Masters of Architecture AER (M. Arch. AER 1st semester)

Course Code	Course Name	L/S, T, P	Credits	Exam Duration
UC/ MARCH 104/19	Educational Technology	2 – L, 2 - T	3	03 Hours

Course Objective

To introduce the students to the importance of Education Technology in Architecture Education. To understand Architecture Education in relation to technology and digitization and the way it has revolutionized Architectural thinking.

Course Outcomes: At the end of the course, the students will able to –

1. Incorporate innovative instructional technologies through project-based activities.
2. Collaborate in online discussions about the field of educational technology.
3. Synthesize information from various texts and online sources.
4. Deliver oral presentation through collaborative, online learning software applications.

Detailed Syllabus:-

UNIT- I (Introduction)

- Educational Technology and its Components
- Systems approach & Multimedia approach in Educational Technology
- Definition, distinction between hardware and software approach, combination approach, Technology of education and technology in education.

UNIT- II (Smart Classroom Interaction)

- Concept, Process and Elements of Communication
- Psychology of Communication and its application in Educational Technology

- Models of Communication, Factors and Barriers
- Classroom Interaction, Classroom Interaction Analysis -Flander Interaction category system.

UNIT-III (Latest Trends in Educational Technology)

- Personalized system of instruction (PSI) -Programmed Learning
- CCTV, Computer Assisted Instruction (CAI)
- Modern trends in multimedia
- Virtual Reality & Virtual Environments/classroom
- Educational Satellite, Interactive Video, Tele and Video conferencing - Web 2.0 in Education, E-learning, e-teaching, digital conferences
- Course management soft wares

UNIT- IV (Digital Architecture)

- Virtual Classrooms and laboratories: Concepts and consideration for virtual classroom and virtual laboratories.
- Use of Digital Resources: Open courseware- NPTEL, MIT, YouTube, courses, etc. National Knowledge networks, E-Repository, Digital libraries.
- Effective Integration of Digital Courses, Digital Tools

CORE REFERENCES:

- Sampath, K et al., Introduction to Educational Technology, New Delhi: Sterling Publishers Pvt. Ltd., 1981.
- Dale, Edgar, Audio Visual Methods in Teaching. Hinsdale, Illinois: The Dryden Press Inc.
- Brown, JW: Lewis, RB and Harclerod, FF, AV Instruction – Technology Media and Methods, New York: Mc Graw Hill Book Company
- Wittich, WA and Shuller, CF. Instructional Technology – its nature and use, New York : Harper & Row Publishers

Evaluation Criteria for Exam Question Paper Setting:-

Total eight questions are to be set two from each unit & students are required to attempt total four questions i.e. one from each unit.

IK Gujral Punjab Technical University
Masters of Architecture AER (M. Arch. AER 1st semester)

Course Code	Course Name	L/S, T, P	Credits	Exam Duration
UC/MARCH105/19	Research Methodology - I	3 – L, 1- T	3	03 Hours

Course Objective

- To develop understanding of the basic framework of research process
- To develop an understanding of various research designs and techniques
- To identify various sources of information for literature review and data collection
- To develop an understanding of the ethical dimensions of conducting applied research
- Appreciate the components of scholarly writing and evaluate its quality

Course Outcomes:

At the end of the course, the students will able to –

1. Design framework/ techniques for research process
2. Demonstrate knowledge of research processes (reading, evaluating, and developing)
3. Perform literature reviews using print and online databases
4. Explain the rationale for research ethics
5. Formulate the research in the form of thesis/ report

Detailed Syllabus:-

UNIT- I

- **Introduction to Research Methodology:** Research problem and research design; formulation of hypotheses and statement of research problem; ethical issues in research – authenticity, plagiarism, manipulation of data in research.

- **Research Methods:** Research techniques and tools; types of research methods: quantitative and qualitative; interpretive-historical; descriptive – survey analysis, case study, content analysis, co-relational, ex-post facto, experimental, simulation, logical argumentation.

UNIT- II

- **Data Analysis:** Statistical methods - sampling techniques – probability sampling (simple random sampling, systematic sampling, stratified random sampling, cluster and multi-stage sampling) and non-probability sampling (convenience of incidental, volunteer sampling, judgment or purposive sampling, quota or chunk sampling, snowball sampling); tools for collection of data – questionnaires, observation schedules, interview schedules, standardized tests, focused group discussion; Computer Processing;
- **Data Interpretation:** Interpretation and presentation of results; overview of descriptive statistics (Measures of central tendency and dispersion); overview of inferential statistics (Co-relational Techniques - rank order correlation, Karl Pearson's correlation coefficient, chi-square)

UNIT-III

- **Developing a Research Proposal:** Format of research proposal; individual research proposal; institutional proposal
- **Report writing:** Structure and components of scientific & technical report and thesis – different steps in the preparation, layout, language, quality of illustrations and tables (bibliography, referencing and footnotes).

Note for Paper setter:

The syllabus has been divided into three units. Paper setter will set three questions from each unit and one compulsory question spread over the whole syllabus & consisting of short answer questions. The compulsory question will be set as first question. The students will be required to attempt six questions in all including the compulsory question. The student can attempt maximum two questions from each unit. All questions carry equal marks.

CORE REFERENCES:

- Borg, W. and Gall, M., Educational Research: An Introduction, New York, Longman (2003)
- Burke, J. and Larry, Christensen, Educational Research: Quantitative, Qualitative and Mixed Approaches, ND: Sage Pub (2008)
- Brings, R.J. and Coleman, M., Research Methods in Educational Leadership and Management, ND:Sage Pub. (2007)
- Cohen, L., Educational Research in Classrooms and Schools! A Manual of Materials and Methods, NY: Harper and Row Publishers (2000)
- CPSC: Developing Skills in Technician Education Research Modules 1 to 11 Singapore, Colombo Plan Staff College for Technician Education
- Drew, C.J., Designing and Conducting Research in Education, ND:Sage Pub. (2008)
- Garrett, H.E. and Woodworth, R.S., Statistics in Psychology and Education, Educational Research, Bombay, Vakils Fetter and Simons Ltd. (2003)
- Gay, L.R., Educational Research, Ohio: Charles E. Merrill Publishing Company (2000)

- Gupta S.L. and Gupta H., Research Methodology (Text and Cases with SPSS) International Book House, New Delhi (2011)
- Kaul, L., Methodology of Research, Vikas Publishing House, New Delhi (2009)
- Levin, R. and Rubin, D.S., Statistics for Management, Pearson Prentice Hall (2009)
- Oliver, P., Understanding the Research Process. ND:Sage Publications (2010)
- Wiersma, W., Research Methods in Education – An Introduction London, Allyn and Bacon, Inc. (2000)

IK Gujral Punjab Technical University
Masters of Architecture AER (M. Arch. AER 2nd semester)

Course Code	Course Name	L/S, T, P	Credits	Exam Duration
UC/MARCH-105/19	Fundamentals of built environment and resource conservation	2 - L, 2 - S	3	03 Hours

Course Objective

This course provides an introduction the environment and sustainable development. Understanding of the principles of design for sustainable development. Understanding of the social, cultural, global and environmental responsibilities of professionals. concepts, theories, and research in psychology of learning and teaching. This course will help the students to set goals and plan each goal specifically for class.

Course Outcomes: At the end of the course, the students will able to –

1. Ability to identify the sustainability of built environment.
2. Ability to identify the best practice in sustainable development.
3. Ability to evaluate and form proposal of an existing urban development based on the concept of sustainable development.

Detailed Syllabus:-

UNIT- I (Fundamentals of Built Environment)

- Built Environment definition and context
- Urban and Rural context of Built Environment
- Regenerative Development
- Review of Urban forms, Patterns and spaces in different periods of history viz ancient river valley civilization, Greek, Roman, Medieval, Renaissance, Baroque, in India and their influencing factors.
- Elements of urban Environment –urban form, townscape, urban spaces, streetscapes, and building forms.

UNIT-II (Application of Software)

- Application of Software of Arc GIS and other software for spatial planning and study.

UNIT- III (Concept and need for conservation)

- Concept and need for conservation.
- Conserving land, water, flora and fauna in Indian traditional system and architecture, Understanding the traditional technologies and method of conservation in Indian Context and their implication

UNIT-IV (Fundamental of planning and design)

- Fundamental of planning and design of resources conserving architecture.
- Innovative and appropriate design concepts, architecture and construction technologies with case studies of Indian and foreign context

Evaluation Criteria for Exam Question Paper Setting:-

Total eight questions are to be set two from each unit & students are required to attempt total four questions i.e. one from each unit.

2nd Semester

IK Gujral Punjab Technical University
Masters of Architecture AER

IK Gujral Punjab Technical University
Masters of Architecture AER (M. Arch. AER 2nd semester)

Course Code	Course Name	L/S, T, P	Credits	Exam Duration
UC/MARCH-201/19	Studio II	L-2, S-4	6	Viva Only

Course Objective:

- Understand the Architectural Education system in India in general and the developed nations in particular or To create understanding of the diversities of Architecture Education in National and International context.
- To understand the Management of Architecture Education and related government policies
- To develop skill in the use of fundamental teaching procedures, techniques and methods of teaching. Teaching of Architecture as a passion.

Course Outcomes: At the end of the course, the students will able to :

1. Differentiate between various models of architecture education prevalent world over.
2. Thoroughly understand the broad curriculum of major Indian schools of architecture like IITs , NITs , SPAs & other institutes of national repute. And also understand the different philosophies applied based on world models.
3. Understand Pedagogy and establish its relation with Architecture.
4. Will be able to plan and deliver at least 2-3 important subjects (professional core, allied or Elective subjects) of B. Arch course.

Methodology:

- Stress must be laid on individual/ collective research & its presentation in the form seminar in the class & finally getting it published.

Detailed Syllabus:

UNIT-I

Various models of architecture education prevalent world over.

Creative Teaching: An exercise to expose the students to understand the basic teaching methodologies of suitable Architects, School (formal or informal) at National and International level for enhancing creativity.

The literature available needs to be reviewed and presented in the class.

Analysis of the curriculum of any major school of thoughts in architecture education at national as well as international level needs to be understood and undertaken.

UNIT- II

Pedagogical analysis of a unit from B. Arch syllabus to make the teaching learning process efficient and effective - meaning & definition, phases of pedagogical analysis, importance/significance in Architecture Pedagogy , merits/demerits, practical on pedagogy.

Programming the teaching schedule - meaning & definition, need & importance, preparing teaching schedule process, merits/demerits, practical
Planning of teaching lessons for

- o Professional Core Subjects (Architecture Design and Architectural Drawing etc)
- o Building science and Applied Engineering subjects (Building Construction & Materials, Building Services, Structures, etc)
- o Elective subjects (Landscape Architecture, Interior Design, Humanities etc)

Planning of assessment methods - need & importance, defining goals and objectives for assessment, planning and stages of assessment programme.

Development of Final evaluation systems - meaning & definition, difference between evaluation and assessment, process of evaluation.

Motivation and Moral boosting - meaning & definition, need & importance.

ASSIGNMENTS

Finally, assignments are to be presented in the form of seminar in the following stages:

Selection of topic and its Understanding (introduction and submission of Synopsis) Preliminary Seminar, Final Seminar, Report Submission Only Seminar Presentations and written reports to be evaluated for the purpose of internal/External assessment.

Students would be require to chose topics from each Unit in consultation with the subject Incharge & thoroughly research it before presenting it in the class as seminar & try to publish it thereafter.

A book review on the topic on the architecture education and related issues should be undertaken as part of internal assessment.

IK Gujral Punjab Technical University
Masters of Architecture (M. Arch. 1st Year)

Course Code	Course Name	L/S, T, P	Credits	Exam Duration
UC/MARCH-202/19	Contemporary Architecture - II	L-2, S- 2	3	03 Hours

Course Objective:

To identify various factors which have led to the new forms of architecture around the world.

To recognize the cultural, social and political compulsion behind the changing forms of architecture.

Role of material availability & technical know-how on the final outcome of any style of architecture.

Course Outcomes: At the end of the course, the students will able to –

1. Understand the contemporary trends of world architecture.
2. Appreciate the role played by various professionals especially in the field of material science and technological development in the field of building industry.
3. They will also understand the building as a collective & collaborative effort of various professionals.
4. Will be able to appreciate the diversity & suitability of vernacular/ traditional architecture around the world as a solution to global warming.

Methodology:

Stress must be laid on individual collective research & its presentation in the form seminar in the class & finally getting it published.

Detailed Syllabus:- Overview of World architecture in terms of major factors & drivers of architectural form, space, climate & cultural , social, political influences and use of materials and construction techniques related to

Unit I Medieval Era, Renaissance, Industrial Revolution, Intervening period till world war

Unit II Post world war period/ Modern movement, Postmodern period, De constructive etc, (Architecture of Twentieth century)

Unit III Architecture of Twenty first century, Impact of various innovations on the architecture

Climate Change/ Global warming & its impact on the architecture around the world.

Various trends of sustainable buildings.

Unit IV

Vernacular architecture of the developed and developing world.

Students would be require to choose one topic from each Unit in consultation with the subject Incharge & thoroughly research it before presenting it in the class as seminar & try to publish it thereafter.

A book review on the topic on the contemporary architecture should be undertaken as part of internal assessment.

Evaluation Criteria for Exam Question Paper Setting:-

Total eight questions are to be set two from each unit & students are required to attempt total four questions i.e. one from each unit

IK Gujral Punjab Technical University
Masters of Architecture AER (M. Arch. AER 2nd semester)

Course Code	Course Name	L/S, T, P	Credits	Exam Duration
UC/ MARCH 204/19	Psychology of Learning and Teaching	2 -L, 2 - S	3	03 Hours

Course Objective

This course provides an introduction to concepts, theories, and research in psychology of learning and teaching. This course will help the students to set goals and plan each goal specifically for class.

Course Outcomes: At the end of the course, the students will able to –

1. To equip the students with the psychological theories and techniques of learning, motivation and creativity, hence adding to teaching skills.
2. Apply learning theories and models to classroom situations.
3. Compare and contrast the various factors that cognitive, behavioural, and humanistic theorists believe influence the learning process

Detailed Syllabus:-

UNIT- I (Teaching Models)

- Fundamental Teaching Model: Theory of teaching; Psychological teaching models; Historical teaching models
- Instructional Objectives: instructional and behavioural objectives; Task analysis
- Entering Behaviour: definition of entering behaviour; Classes of entering behaviour; instructional use of entering behaviour

UNIT-II (Learning)

- Varieties Of Learning And Conditions Of Learning: Gagne varieties of learning: verbal information; intellectual skills- discrimination, concepts principles and problem solving; Conditions of learning.

- Meaning and Definition, Domains of Learning: Cognitive, Affective and Psychomotor
- Learning Process and Its Aspects, Factors Affecting Learning
- Learning Theories and Their Educational Implications: Behaviourist, Cognitivist and Humanist

UNIT- III (Motivation)

- Motivation : A definition of motivation : concept of motivation; types of motivation - intrinsic and extrinsic.
- Theories of motivation; Maslow need hierarchy; Herzberg two factor theory; McClelland three need theory; vroom's expectancy theory; Adam equity theory.
- Techniques of motivating students

UNIT-IV (Creativity)

- Meaning nature and concept of creativity, Constitutes of creativity, Characteristics of creativity, Originality, flexibility, Creativity & Intelligence.
- Theories of creativity, Traditional and modern views of creativity, Creativity techniques
- Assessment of creativity, Encouraging and promoting creativity- Nickerson creativity technique, Creativity and architecture: trends and scope.

CORE REFERENCES:

- De Cecco, John P. and Crawford, William, The Psychology of Learning and Instruction: Educational Psychology, New Delhi, Prentice Hall of India Private Limited (1977)
- Gagné, Robert Mills, The Conditions of Learning, Holt, Rinehart and Winston (1977)
- Gagné, Robert Mills and Driscoll, Marcy Perkins, Essentials of learning for instruction, Prentice Hall (1988)

IK Gujral Punjab Technical University
Masters of Architecture AER (M. Arch. AER 2nd semester)

Course Code	Course Name	L/S, T, P	Credits	Exam Duration
UC/ MARCH 205/19	Architecture Research Methodology - II	2 - L, 2 - S	3	03 Hours

Course Objective

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 engage this understanding in the specific field of architectural research.

Course Outcomes: At the end of the course, the students will able to –

1. The student will develop the skill to identify, translate and interpret issues relating to architecture based on research enquiry methods.
2. The student will gain knowledge of different methods of conducting research and research writing.
3. An ability to craft a thesis statement and produce an appropriate program of inquiry.
4. An ability to evaluate and apply information.

Detailed Syllabus:-

UNIT- I (Introduction)

- Basic research issues and concepts
- Orientation to research process Types of research
- Historical, qualitative, correlational ,experimental, simulation and modelling, Logical and argumentation, case study and mixed methods
- Illustration using research samples

UNIT- II (Research Process)

- Elements of Research process:

- Finding a topic- writing an introduction
- Stating a purpose of study identifying key research questions and hypotheses
- Reviewing literature, using theory defining ,delimiting and stating the significance of the study,
- Advanced methods and procedures for data collection and analysis
- Illustration using research samples

UNIT-III (Researching & Data Collection)

- Library and archives
- Internet: New information and the role of internet
- Finding and evaluating sources
- Methods of data collection - From primary sources
- Observation and recording, interviews, structured and unstructured, questionnaire, open ended and close ended questions and the advantages, sampling, Survey.
- Problems encountered in collecting data from secondary sources.

UNIT- IV (Report Writing)

- Research writing in general
- Components: referencing
- writing the bibliography
- Developing the outline
- presentation.

CORE REFERENCES:

- Groat, Linda and Wang, David, Architectural Research Methods, John Wiley & Sons (2002)
- McK Agnew, Neil and W. Pyke, Sandra, The Science Game: An Introduction to Research in the Social Sciences, Prentice Hall (1987)
- Zeisel, John, Inquiry by Design: Tools for Environment Behavior Research, Brookes/ Cole (1981)

Evaluation Criteria for Exam Question Paper Setting:-

Total eight questions are to be set two from each unit & students are required to attempt total four questions i.e. one from each unit.

IK Gujral Punjab Technical University
Masters of Architecture AER (M. Arch. AER 2nd semester)

Course Code	Course Name	L/S, T, P	Credits	Exam Duration
UC/MARCH-205/19	Elective I (Architecture Appreciation)	L-2, S-2	3	03 Hours

Course Objective: is to make the students appreciate Architecture as an Art and Science of building beautiful and everlasting pieces of human habitation.

Course Outcomes: After the completion of course, the students will be able to:

1. Explore and understand the traditional architecture in Indian context with reference to the six major climatic zones prevalent in the country and appreciate the centuries old wisdom of creating Human Responsive Built Environment.
2. Generate and utilize information for use in design decisions.

Detailed Syllabus:-

UNIT-I

- To understand and appreciate the basic philosophy and Influence of socio-cultural factors in architecture of the Traditional Indian buildings which influenced the architecture of their respective regions for a significant span of time.
- Context of building and organisation of space, with reference to the function and climatic factors in various zones in India.
- To study and comprehend traditional Indian Architecture created in response to Geological and Geographical need in the past and their impact on the local Architecture.

UNIT- II

- To understand and appreciate the **various building materials** in the traditional Indian architecture in context to the function and climatic needs and its influence on the human psyche. Stress should be laid on understanding the features of the building that survived through the test of time.
- To understand and comprehend the various **construction technologies** used for the traditional Indian buildings, with reference to the change in function and scale of the building.

UNIT-III

- To study, understand and appreciate the basic philosophy in architectural designing of **historical buildings of the world** which have influenced the architecture of their respective regions for a significant span of time. Context of building and organisation of space, with reference to the function and climatic factors should be analysed.
- To study and comprehend **traditional world Architecture** created in response to Geological and Geographical need in the past.

UNIT- IV

- To study, understand and appreciate the **contemporary buildings** which have influenced the architecture of their respective area. Context of building and organisation of space, with reference to the function and climatic factors should also be analysed.

Methodology: All exercises, as far as possible should be conducted through case studies.

Evaluation Criteria for Exam Question Paper Setting:-

Total eight questions are to be set two from each unit & students are required to attempt total four questions i.e. one from each unit.