

1.1.3

Supporting Documents-

Department of Architecture

**Mapping of Courses to Employability/ Skill  
Development**



Name of the Department: Architecture.

Paper UC/BTHU-101/18 Communicative English

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. Have proficiency in reading & listening, comprehension, writing and speaking skills.					√					√		√				Understand	Yes	Group Discussions, Individual Presentations, MST, End Term Examination
CO 2: Understand spoken and written English language, particularly the language of their chosen technical field.					√					√		√				Understand	Yes	Group Discussions, Individual Presentations, MST, End Term Examination
CO 3: Converse fluently.					√					√		√				Understand	Yes	Group Discussions, Individual Presentations, MST, End Term Examination
CO 4: Produce clear and coherent texts on their own.					√					√		√				Understand and Analyse	Yes	Group Discussions, Individual Presentations, MST, End Term Examination

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BTHU-102/18 Workshop-I

	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre - Design research	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o			
CO1:1. Gain the basics knowledge of the carpentry tools and its joints.	√		√		√		√		√		√		√		√	understanding	Yes	University Viva-Voce
CO 2: 2. Attain skill to work with different materials for making architectural model		√		√		√		√		√		√		√		Analysis	Yes	University Viva-Voce

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/HSMC-122/18 Human Value and Professional Ethics

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. Gain the basics knowledge of the carpentry tools and its joints.	✓		✓		✓		✓		✓		✓		✓			Understanding	YES	Group Discussions, Individual Presentations, MST, End Term Examination
CO 2: 2. Attain skill to work with different materials for making architectural model		✓		✓		✓		✓		✓		✓		✓	✓	Analysis	YES	Group Discussions, Individual Presentations, MST, End Term Examination

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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148

Name of the Department: Architecture.

Paper UC/BARCH-201/19 Architectural Design - II

	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre - Design research	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook			
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. Develop a basic understanding of function, form, structure in the design of small structure.	√	√	√	√		√	√			√		√	√		√	Understanding	YES	Group Discussions, Individual Presentations, MST, End Term Examination
CO 2: 2. Understand & gain a fundamental knowledge of architecture design process and its principles.	√	√	√	√		√		√	√		√	√		√		Application	YES	Group Discussions, Individual Presentations, MST, End Term Examination

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

PaperUC-BARCH202-19 Architectural Drawing - II

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. Understand the fundamental techniques of technical drawing used in 3-D.	√	√	√					√	Individual	√		√	√			Understanding /Application	Yes	Sheet Work/ Mid term Exam/End Term Exam
CO 2: 2. Analyse the 3-dimensional drawings of the building with Sciography.	√	√	√		√			√	Individual	√		√	√			Understanding /Application/Analysis	Yes	Sheet Work/ Mid term Exam/End Term Exam/Neptel-Swayam Courses

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-203/19 Architectural Graphics - II

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge																		
Problem Solving																		
Design development																		
Conduct Investigations/ Pre - Design research																		
Use of Modern tool																		
Socially responsible architecture																		
Environment and Sustainability																		
Ethics																		
Individual and team work																		
Communication																		
Management and finance																		
Life-long Learning																		
Analysis and Design Skill																		
Research and Innovation																		
Sustainable Outlook																		
CO1: Gain a fundamental knowledge of architecture Graphics and its principles.	√				√				√	√		√	√			Understanding	Entrepreneurship	University End Term Examination
CO 2: Attain the knowledge about the role of colours in presentation drawing and rendering techniques used in architectural design.		√	√			√	√					√	√	√	Application	Yes	University End Term Examination	

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-204/19 History of Architecture - II

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: Develop an understanding of architecture as an outcome of various social, political and economic influences and as a response to the cultural and climate conditions.	v		v		v		v	v		v		v		v		Understanding	Yes	Sheet work, site study
CO 2: Develop an understanding of the physical experience of buildings in order to appreciate the complexity of the physical and metaphysical influences bearing on architecture.		v	v	v		v	v		v		v		v		v	Application	Yes	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-205/19 Building Construction and Materials - II

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: Comprehend timber as a building material and its application in building components and Gain knowledge on construction of Door, window, roof made out of it.	v			v		v		v		v		v	v			Application	Yes	Sheet work, site study
CO 2: Understand various surface finishes for single storey building and the fundamental knowledge for water proofing details in simple structures.		v	v		v		v		v		v	v				Understanding	Yes	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-206/19 Theory of Structures - I

	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre - Des	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o			
CO1: Develop techniques for analysing forces in statically determinate structures.	✓	✓	✓					✓	✓	✓		✓	✓			understanding, Analysis	Yes	Minor Exams, Quiz, End Term Exams
CO 2: Apply basic knowledge of Maths and Physics to solve real life problems related to structures	✓	✓	✓					✓	✓	✓		✓	✓			understanding, Analysis	Yes	Minor Exams, Quiz, End Term Exams
CO 3: Describe Hooke's law relationships and perform calculations	✓	✓	✓					✓	✓	✓		✓	✓			understanding, Analysis	Yes	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-204/19 History of Architecture - II

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge	✓															Understanding	Yes	Sheet work, site study
Problem Solving		✓														Application	Yes	Minor Exams, Quiz, End Term Exams
Design development			✓															
Conduct Investigations/ Pre - Design research				✓														
Use of Modern tool					✓													
Socially responsible architecture						✓												
Environment and Sustainability							✓											
Ethics								✓										
Individual and team work									✓									
Communication										✓								
Management and finance											✓							
Life-long Learning												✓						
Analysis and Design Skill													✓					
Research and Innovation														✓				
Sustainable Outlook															✓			

CO1: Develop an understanding of architecture as an outcome of various social, political and economic influences and as a response to the cultural and climate conditions.  
 CO 2: Develop an understanding of the physical experience of buildings in order to appreciate the complexity of the physical and metaphysical influences bearing on architecture.

(Signature of Head of Department)

Note: Provide Mapping for all courses offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-206/19 Theory of Structures - I

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre - E	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o			
CO1: Develop techniques for analysing forces in statically determinate structures.	v	v	v					v	v	v		v	v			understanding, Analysis	Yes	Minor Exams, Quiz, End Term Exams
CO 2: Apply basic knowledge of Maths and Physics to solve real life problems related to structures	v	v	v					v	v	v		v	v			understanding, Analysis	Yes	Minor Exams, Quiz, End Term Exams
CO 3: Describe Hooke's law relationships and perform calculations	v	v	v					v	v	v		v	v			understanding, Analysis	Yes	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-207/19 Theory of Design - I

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge	✓															Application	Yes	Sheet work, site study
Problem Solving	✓															Analysis	Yes	Minor Exams, Quiz, End Term Exams
Design development	✓																	
Conduct Investigations/ Pre - Des	✓																	
Use of Modern tool	✓																	
Socially responsible architecture	✓																	
Environment and Sustainability	✓																	
Ethics	✓																	
Individual and team work	✓																	
Communication	✓																	
Management and finance	✓																	
Life-long Learning	✓																	
Analysis and Design Skill	✓																	
Research and Innovation	✓																	
Sustainable Outlook	✓																	

CO1: Develop a basic understanding of spatial organisation.  
CO2: Learn about the inter-dependence of function, structure and form in architectural design.

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-209/19 Environmental Science

	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre - Des	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook			
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: Propose solutions to environmental problems related to resource use and management.		√					√	√	√			√			√	Understanding	Yes	Group Discussions, Individual Presentations, MST, End Term Examination
CO 2: Interpret the results of scientific studies of environmental problems		√					√	√	√			√			√	Application	Yes	Group Discussions, Individual Presentations, MST, End Term Examination
CO 3: Describe threats to global biodiversity, their implications and potential solutions.		√					√	√	√			√			√	Analysis	Yes	Group Discussions, Individual Presentations, MST, End Term Examination

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-210/19 Mentoring & Professional Development- I

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: Personality Development and Holistic Development		✓					✓	✓	✓	✓						Understand	Yes	Individual Presentations, Group Discussions and Activities
Architectural Knowledge																		
Problem Solving		✓																
Design development																		
Conduct Investigations/ Pre - D																		
Use of Modern tool																		
Socially responsible architect							✓											
Environment and Sustainability							✓											
Ethics							✓											
Individual and team work							✓											
Communication							✓											
Management and finance											✓							
Life-long Learning																		
Analysis and Design Skill																		
Research and Innovation																		
Sustainable Outlook																		

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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*[Handwritten Initials]*

Name of the Department: Architecture.

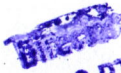
Paper UC/BARCH-301/19 Architectural Design - III

	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pr	Use of Modern tool	Socially responsible archit	Environment and Sustaina	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook			
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: The students will able understand the nuances of house, school, cafeteria and post office design.	√	√	√	√		√	√		√	√		√	√	√		Understanding	Employability / Entrepreneurs	University End Term Examination
CO 2: They will also be well versed with various physical factors of architecture design and equipped with the norms of barrier free design.	√	√	√		√	√	√	√	√		√	√	√		√	Application	Employability / Entrepreneurs	University End Term Examination

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-302/19 Building Construction &

Materials-III

	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pr	Use of Modern tool	Socially responsible archite	Environment and Sustaina	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o			
CO1: At the end of the course student will able to become aware of the different types of timber roofing systems and trusses.	✓			✓					✓			✓		✓		Understanding, Application	Yes	Sheet Work/ Problem Solving/ Mid term Exam/End Term Exam
CO 2: Understand details for trusses, staircases, sliding doors, sliding folding doors, partitions, panelling, work out and apply appropriate details for building construction of the same.	✓	✓			✓		✓		✓		✓		✓		Understanding, Application	Yes	Sheet Work/ Problem Solving/ Mid term Exam/End Term Exam	

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-303/19 Structure Systems-II

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations	Use of Modern tool	Socially responsible arc	Environment and Sustai	Ethics	Individual and team wo	Communication	Management and finan	Life-long Learning	Analysis and Design S	Research and Innovatio	Sustainable Outlook	Learning Lev	Focus on Employability /	Assessment Tools to Measure Attainment of
CO1:At the end of the course, the students will be able to gain ability to comprehend the Design erection process and application of large span structures.	√		√		√	√			√		√	√	√	√	√	Understanding	Employability	University Viva-Voce
CO 2: To understand the need and importance of prefabricated components	√	√		√	√		√	√		√		√	√		√	Application	Employability	University Viva-Voce
CO 3: process. To understand the needs, requirements, and selection for various types of structures systems.	√		√		√				√		√	√	√	√	√	Analysis	Employability	University Viva-Voce

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-304/19 Structure Design - 1

Course Outcome	PO- a	PO- b	PO- c	PO- d	PO- e	PO- f	PO- g	PO- h	PO- i	PO- j	PO- k	PO- l	PO- m	PO- n	PO- o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge	v	v	v													understanding, analysis	yes	Minor Exams, Quiz, End Term Exams
CO1: At the end of the course, the students will be able to Design timber beams by applying B codal provisions, Design Masonry foundation and retaining walls'					v											understanding, analysis	yes	Minor Exams, Quiz, End Term Exams
CO 2: Analyse indeterminate structures and to calculate shear force and bending moment in determinate structures'	v	v	v		v											understanding, analysis	yes	Minor Exams, Quiz, End Term Exams
Problem Solving																		
Design development																		
Conduct Investigations/ Pre -																		
Use of Modern tool																		
Socially responsible architecture																		
Environment and Sustainability																		
Ethics																		
Individual and team work																		
Communication																		
Management and finance																		
Life-long Learning																		
Analysis and Design Skill																		
Research and Innovation																		
Sustainable Outlook																		

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-305/19 surveying & Leveling

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre -	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o			
CO1:courseoutcomes:At the end of the course,the students will able to do chain survey in,compass survey, plane table survey, levelling, contourinS' Students will have knowledge of survey instruments also.	v	v						v	v	v		v				understanding	Yes	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-306/19 Climate&Architecture-1

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:At the end of the course, the students will able to understand the fundamental of climatology as important consideration in architecture design and it will orient his/ her proposal accordingly. Like thermal comfort, design sensitivity towards climate and climatic zones'	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	Understanding	Yes	Assignment, Group work, model MST

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: Architecture.

Paper UC/BARCH-307/19 Computer Application-I

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre -	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook	Learning Level	Focus on Employability/ Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o			
CO1:At the end of the course, the students will able to understand basics of Computers hardware, operating systems and operative languages, being a fundamental course the students will be introduced to the basic of hardware and software.	v		v		v	v			v	v		v		v		understanding	Yes	Minor Exams, Quiz, End Term Exams
CO2: They will be introduced to 2D presentation..		v		v		v		v	v		v		v		v	Application	Yes	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Ashish*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

*Sp*

Name of the Department: Architecture.

Paper UC/BARCH-309/19 Educational Tour I/Summer Training-I / Vacation Assignment-I

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO	
CO1: The education tour is encouraged to be undertaken by the students under faculty supervision. During or after the semester the tour report shall be submitted to the class coordinator for assessment. The students should be encouraged undertaking approx. 04 week summer training in a design / construction/allied office. Alternatively student should also be encouraged to do any online course of similar duration during the summer vacation.	Architectural Knowledge	v																	
	Problem Solving	v	v																
	Design development		v																
	Conduct Investigations/ Pre - Design research		v																
	Use of Modern tool			v															
	Socially responsible architecture			v															
	Environment and Sustainability			v															
	Ethics				v														
	Individual and team work				v														
	Communication					v													
	Management and finance						v												
	Life-long Learning							v											
	Analysis and Design Skill								v										
	Research and Innovation														v				
	Sustainable Outlook																		

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*D. Singh*

Director  
I.K.G.P.T.U  
Mohali Campus-I.

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Name of the Department: Architecture.

Paper UC/BARCH-401/19 Architectural Design -IV

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability/ Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will be able to Study Social and Physical environment and methods of construction in Vernacular/Rural Architecture, emerging out of the traditional way of life of the people in a given place with special reference to Punjab.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding	YES	Sheet work, site study, Minor Exams, Quiz, End Term Exams
CO2: understand the principles of design in vernacular/ traditional architecture w.r.t to thermal comfort, climate, and topography.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Application	YES	Sheet work, site study, Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Singh*

**Director**  
**L.K.G.P.T.U**  
**Meerut Campuses-II**

*Chen*

Name of the Department: Architecture.  
 Paper: UZ/NARCH-402/19 History of Architecture-III

Course Outcome CO1: At the end of the course, the students will be able to approach the architectural structures provided by their ancestors and correlate them with the contemporary scenario.	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level Understanding and Application	Focus on Employability/ Entrepreneurship Yes	Assessment Tools to Measure Attainment of CO Sheet work, site study, Minor Exams, Quiz, End Term Exams
Architectural Knowledge	✓																	
Problem Solving																		
Design development																		
Conduct Investigations/ Pre - Des	✓																	
Use of Modern tool																		
Socially responsible architecture																		
Environment and Sustainability																		
Ethics																		
Individual and team work																		
Communication																		
Management and finance																		
Life-long Learning																		
Analysis and Design Skill																		
Research and Innovation																		
Sustainable Outlook																		

(Signature of Head of Department)

Note: Provide Mapping for all courses offered by the Department

*Dr. S. Srinivas*

**Director  
 I.K.G.P.T.U  
 Allohalai Campus-II**

*Prasanna*

Name of the Department: Architecture.

Paper UC/BArch-403/19 Building Construction & Materials-IV

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. At the end of the course student will be able to become aware of the roof and floor coverings.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	University End Term Examination
CO2:2. Understand details for trusses, staircases, sliding doors, sliding folding doors, partitions, panelling, work out and apply appropriate details for building construction of the same.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Applications	Employability / Entrepreneurship	University End Term Examination

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Srinivas*

Director  
I.K.G.P.T.U  
Mothrali Campus-II

*15*

Name of the Department: Architecture.

Paper UC/BARCH-404/19 Structure Design -II

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will be able to – design RCC Beams, Slabs, Columns, and footings with different loads for one-story simple buildings.	✓		✓		✓		✓		✓		✓		✓			understanding	YES	Sheet work, site study, Minor Exams, Quiz, End Term Exams
CO2: At the end of the course, the students will be able to – design RCC Beams, Slabs, Columns, and footings with different loads for one-story simple buildings.		✓		✓		✓		✓		✓		✓		✓		Application	Minor Exams, Quiz, End Term Exams	Sheet work, site study, Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Singh*  
 Director  
 I.K.G.P.T.U  
 Motrali Campus-II

*JS*

Name of the Department: Architecture.

Paper UC/BATCH-405/19 Building Services-I

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: Understand the terminology and basic principles of water supply, stormwater drainage, and sanitation.	V				V		V			V					V	Understanding	Employability / Entrepreneurship	Sheet work, site study
CO2: Understand water requirements in various types of buildings, types of water storage and distribution systems, sanitary & drainage system requirements, and their integration in architectural design.							V				V					Application	Employability / Entrepreneurship	Minor Exams, Quiz, End Term Exams
CO3: Understand the functions of various sanitary fittings and fixtures and be aware of the different types of materials and specifications of the same.		V					V				V					Understanding	Employability / Entrepreneurship	Sheet work, site study
CO4: Develop design skills for water supply and drainage systems in buildings and prepare architectural drainage layouts.	V			V									V			Application	Employability / Entrepreneurship	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Subinithy*  
**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**

*SP*



Name of the Department: Architecture.

Paper UC/BARCH-406/15 Climate & Architecture-II

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
At the end of the course, the students will be able to understand advanced climatology and ventilation as an important consideration.	V															Understanding	Employability / Entrepreneurship	Sheet work, site study, Minor Exams, Quiz, End Term Exams
At the end of the course, the students will be able to analyse the climatic data.	V															Application	Employability / Entrepreneurship	Sheet work, site study, Minor Exams, Quiz, End Term Exams
Architectural Knowledge	V																	
Problem Solving		V																
Design development			V															
Conduct Investigations/ Pre - Des				V														
Use of Modern tool					V													
Socially responsible architecture						V												
Environment and Sustainability							V											
Ethics								V										
Individual and team work									V									
Communication										V								
Management and finance											V							
Life-long Learning												V						
Analysis and Design Skill													V					
Research and Innovation														V				
Sustainable Outlook															V			

(Signature of Head of Department)

Note: Provide Mapping for all courses offered by the Department

*[Handwritten Signature]*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

*[Handwritten Initials]*

Name of the Department: Architecture.

Paper UC/BARCH-407/19 Computer Application -II

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Conduct Investigational Pre - Des	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: Develop skills required for using Computers as a tool for design, 3D modeling, and rendering.	✓			✓				✓	✓		✓			✓		Understanding	Employability / Entrepreneurship	Minor Exams, Quiz, End Term Exams
CO2: Familiarize themselves with 3D model design and rendering techniques using different software for building visualization/design representation.		✓	✓		✓		✓		✓	✓		✓		✓		Application	Employability / Entrepreneurship	Minor Exams, Quiz, End Term Exams
CO3: Produce 3D models and renderings of simple and complex buildings using CAD and other software programs.			✓			✓		✓			✓			✓		Application	Employability / Entrepreneurship	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. K. Singh*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

*JS*

Name of the Department: Architecture.

Paper: UC/BAECH-488/29 Mentoring and Professional Development-II

Course Outcome CO1: Personality Development and Holistic Development (Signature of Head of Department)	Focus on Employability / Entrepreneurship										Assessment Tools to Measure Attainment of CO Individual and Group Presentations, Discussions, Activities		
	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j		Learning Level Application	Yes
Architectural Knowledge	Y												
Problem Solving													
Design development													
Conduct Investigations/ Pre - Des													
Use of Modern tool													
Socially responsible architecture													
Environment and Sustainability													
Ethics													
Individual and team work													
Communication													
Management and finance													
Life-long Learning													
Analysis and Design Skill													
Research and Innovation													
Sustainable Outlook													

Note: Provide Mapping for all courses of all programs offered by the Department

*P. S. Srinivasan*  
**Director**  
**I.K.G.P.T.U.**  
**Mobali Campus-II**

*PS*

Name of the Department: Architecture.

Paper UC/BARCH-409/19 Constitutional Law

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre - Des	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:At the end of the course, the students will able to get the basic knowledge of law and constitution.	√	√				√		√				√				Understanding	Employability / Entrepreneurship	MST, Assignments, End Semester Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

Name of the Department: Architecture.

Paper UC/BARCH-501/19Architectural Design -V

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre - Des	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. At the end of the course, the students will be able to understand the nuances of commercial and public buildings.	v	v	v		v		v	v		v		v		v	v	Understanding	Employability / Entrepreneurship	Minor Exams, Quiz, End Term Exams
CO2:2. They will also be well versed with various physical factors of architecture design and equipped with the norms of barrier-free design and design of building with respect to site topography.	v	v	v		v		v	v		v		v		v	v	Application	Employability / Entrepreneurship	Minor Exams, Quiz, End Term Exams

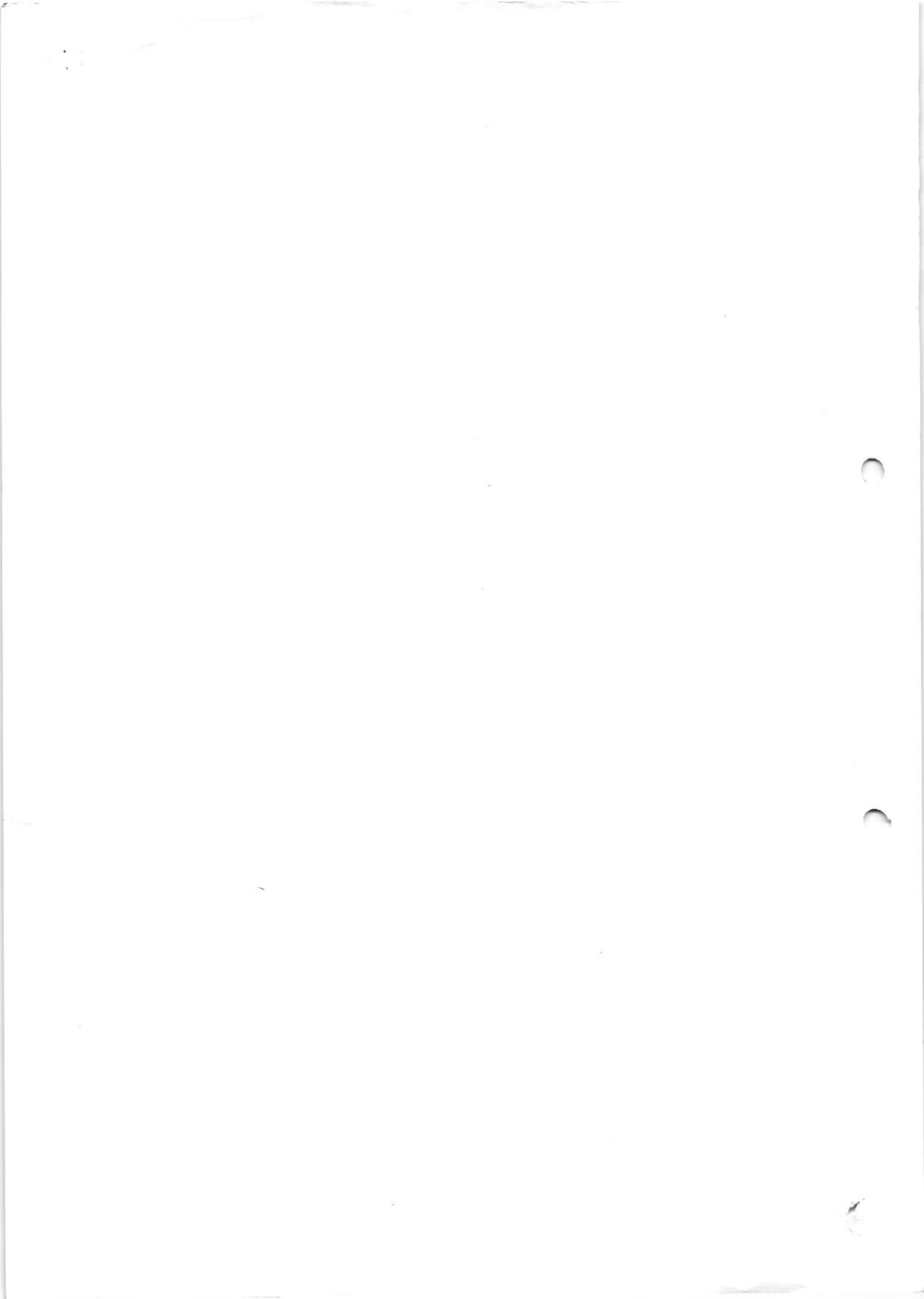
(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Kashyap*  
 Director  
 I.K.G.R.T.U.  
 Motrali Campus-II

*Just*

251



Name of the Department: Architecture.

Paper UC/BARCH-502/19 Building Construction & Materials-V

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO11: At the end of the course student will able to Become aware of the different types roofing systems and trusses.	V															Understanding	Employability / Entrepreneurship	University End Term Examination
CO22: Understand details for trusses, staircases, sliding doors, partitions work out and apply appropriate details for building construction of the same.	V															Applications	Employability / Entrepreneurship	University End Term Examination
Architectural Knowledge	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Problem Solving	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Design development	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Conduct investigations/ Pre - Des	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Use of Modern tool	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Socially responsible architecture	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Environment and Sustainability	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Ethics	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Individual and team work	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Communication	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Management and finance	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Life-long Learning	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Analysis and Design Skill	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Research and Innovation	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Sustainable Outlook	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			

(Signature of Head of Department)

Note: Provide Mapping for all courses offered by the Department

*(Handwritten Signature)*  
 Director  
 I.K.G.A.  
 Mohali Campus-II

*(Handwritten Mark)*

Name of the Department: Architecture.  
 Paper: UC/ARCH-503/19 Structure Systems-III

Course Outcome	Focus on Employability / Entrepreneurship										Assessment Tools to Measure Attainment of CO			
	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j		Learning Level		
CO1: After completing this course, the student will be able to Understand the basic principles of structures.	V										Understanding	Employability	University Viva-Voce	
CO2: Re-align the fundamental requirements of long span structures Understand the architectural features and necessity of shells and plate structures Comprehend the design principles and applications of pneumatic and tensile structures.	V										Application	Employability	University Viva-Voce	
Architectural Knowledge	V													
Problem Solving		V												
Design development			V											
Conduct investigations/ Pre - Des				V										
Use of Modern tool					V									
Socially responsible architecture						V								
Ethics							V							
Individual and team work								V						
Communication									V					
Management and finance										V				
Life-long Learning											V			
Analysis and Design Skill												V		
Research and Innovation													V	
Sustainable Outlook														V

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Singh*

Director  
 I.K.G.P.T.U  
 Mohali Campus-II

*RS*



Name of the Department: Architecture.

Paper UC/BARCH-504/19 Structure Design-II

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will able to Design Beams, Compression members, trusses for different conditions by applying code provisions along with the knowledge of Riveted and welded joints	✓	✓	✓					✓	✓	✓		✓	✓			understanding and a	Yes	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Rachya*

Director  
I.K.G.P.T.U  
Mehali Campus-II

*JS*

Name of the Department: Architecture.

Paper UC/BARCH-505/19 Building Services-II

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: Understand the terminology and basic principles MEP Services.	√		√						individual			√	√			Understanding	yes	Sheet Work, Mid-Term /End Term Examination
CO2: Develop design skills for MEP layouts in architecture design									individual	√		√		√		Understanding	yes	Sheet Work, Mid-Term /End Term Examination

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prakash B*

Director  
L.K.G.P.T.U  
Mehali Campus-II

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Name of the Department: Architecture.

Paper UC/BARCH-506/19 Theory of Design-III

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:At the end of the course, the students will be able to understand, appreciate and learn the design principles, philosophy of design used by masters of modern architects.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	Sheet work, site study
Architectural Knowledge	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Problem Solving	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Design development	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Conduct investigations/ Pre - Des	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Use of Modern tool	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Socially responsible architecture	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Environment and Sustainability	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Ethics	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Individual and team work	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Communication	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Management and finance	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Life-long Learning	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Analysis and Design Skill	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Research and Innovation	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Sustainable Outlook	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Signature*

Director  
L.K.G.P.T.U  
Mohali Campus

*Signature*

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Name of the Department: Architecture.

Paper UC/BARCH-507/19 Landscape Architecture

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will be able to understand and appreciate the elements, principle and need of design and apply the same in landscape design solutions.	✓		✓	✓		✓	✓	✓			✓	✓	✓	✓	✓	understanding	Employability / Entrepreneurship	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Rashmi*  
 Director  
 I.R.G.R.T.U  
 Mohali Campus-II

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184

Name of the Department: Architecture.

Paper UC/BAHCI-508 (A)/19 Green Buildings & Raining System

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO.11. At the end of the course, the students will able to Understand Green buildings and their rating systems.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	Sheet work, site study
Architectural Knowledge	V																	
Problem Solving	V																	
Design development		V																
Conduct Investigations/ Pre - Des			V															
Use of Modern tool				V														
Socially responsible architecture					V													
Environment and Sustainability						V												
Ethics							V											
Individual and team work									V									
Communication										V								
Management and finance											V							
Life-long Learning												V						
Analysis and Design Skill													V					
Research and Innovation														V				
Sustainable Outlook															V			

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Dr. M. S. Srinivasan*  
**Director**  
**L.K.G.P.T.U**  
**Mohali Campus-II**

*SS*

Name of the Department: Architecture.

Paper UC/BARCH-508 (B)/19 Hill Architecture

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will able to Understand Green buildings and their rating systems.	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prashant*  
 Director  
 L.K.G.P.T.U  
 Mohali Campus-II

*5*

Name of the Department: Architecture.

Paper UC/BARCH-508 (C)/19 Emerging Technologies in Architecture

Course Objective	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will able to Understand use of various emerging technologies and their application in Architectural Design and Construction.	V			V		V		V			V				V	Understanding	Employability / Entrepreneurship	Sheet work, site study
CO2: Know about technical advances and advantages of computational technologies through the use of computer modelling, rendering and digital fabrication, with focus on the exploration of space and place making through the use of computer modelling and design construction.		V			V						V			V		Understanding	Employability / Entrepreneurship	Sheet work, site study
CO3: Have an understanding of Building Automation for building types and their applicability to different building services.			V		V		V					V				Understanding	Employability / Entrepreneurship	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*[Handwritten Signature]*  
 Director  
 L.K.G.P.T.U  
 Mohali Campus-II

*[Handwritten Initials]*

Name of the Department: Architecture.

Paper UC/BARCH-508 (D)/19 Product Design

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will able to gain knowledge of product design.	V															Sheet work, site study
Architectural Knowledge	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Focus on Employability / Entrepreneurship
Problem Solving		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Employability / Entrepreneurship
Design development		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level
Conduct Investigations/ Pre - Des		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Understanding
Use of Modern tool		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	
Socially responsible architecture		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	
Environment and Sustainability		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	
Ethics		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	
Individual and team work		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	
Communication		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	
Management and finance		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	
Life-long Learning		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	
Analysis and Design Skill		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	
Research and Innovation		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	
Sustainable Outlook		PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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**Director  
I.K.G.P.T.U  
Mohali Campus-II**

*[Handwritten Initials]*



Name of the Department: Architecture.

Paper UC/BARCH-508 (E)/19 Architecture Acoustics

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will be able to understand the concept on architecture acoustics.	✓		✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prashant*  
 Director  
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*S*

Name of the Department: Architecture.

Paper UC/BARCH-309 (A)/19 Sociology for Architects / Fundamentals of Sociology

Course Objective	PO-3	PO-B	PO-C	PO-D	PO-E	PO-F	PO-G	PO-H	PO-I	PO-J	PO-K	PO-L	PO-M	PO-N	PO-O	Learning Level	Focus on Employability/ Entrepreneurship	Assessment Tools to Measure Attainment of CO
At the end of the course, the students will able to the aspects of sociology for architects and its fundamentals.	PO-3	PO-B	PO-C	PO-D	PO-E	PO-F	PO-G	PO-H	PO-I	PO-J	PO-K	PO-L	PO-M	PO-N	PO-O	Understanding	Employability / Entrepreneurship	Sheet work, site study
	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre - Des	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook			

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*R. S. Singh*

Director

I.K.G.P.T.U.

Mughali Campus-II

*JS*

Name of the Department: Architecture.

Paper UC/BArch-505 (B)/19 Health Education-I

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
At the end of the course, the students will be able to understand the importance of health education.																Understanding	Employability / Entrepreneurship	Sheet work, site study
Architectural Knowledge	N																	
Problem Solving		N																
design development			N															
Conduct Investigations/ Pre - Des				N														
Use of Modern tool					N													
Socially responsible architecture						N												
Environment and Sustainability							N											
Ethics								N										
Individual and team work									N									
Communication										N								
Management and finance											N							
Life-Long Learning												N						
Analysis and Design Skill													N					
Research and Innovation														N				
Sustainable Outlook															N			

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Srinivas*

**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**

*AS*

Name of the Department: Architecture.

Paper UC/BARCH-509 (C)/19 Music (Vocal Instruments)

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will be able to relate music with architecture and distinguish between good and so good music.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	Sheet work, site study
Architectural Knowledge	V																	
Problem Solving		V																
Design development			V															
Conduct Investigations/ Pre - Des				V														
Use of Modern tool					V													
Socially responsible architecture						V												
Environment and Sustainability							V											
Ethics								V										
Individual and team work									V									
Communication										V								
Management and finance											V							
Life-long Learning												V						
Analysis and Design Skill													V					
Research and Innovation														V				
Sustainable Outlook															V			

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Director  
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Mohali Campus-II

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JF

Name of the Department: Architecture.  
 Paper UC/BARCH-509 (E)/19 Creative Writing

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o
Architectural Knowledge	V														
Problem Solving	V	V													
Design development															
Conduct Investigations/ Pre - Des															
Use of Modern tool															
Socially responsible architecture															
Environment and Sustainability															
Ethics															
Individual and team work															
Communication															
Management and finance															
Life-long Learning															
Analysis and Design Skill															
Research and Innovation															
Sustainable Outlook															
Learning Level:	PSO-o														
Understanding															
Employability / Entrepreneurship															
Sheet work, site study															
Assessment Tools to Measure Attainment of CO															

(Signature of Head of Department)  
 Note: Provide Mapping for all courses of all programs offered by the Department

Prasanna  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

Name of the Department: Architecture.

Paper UC/BARCH-S10 /19 Educational Tour II/ Summer Training-II/Vacation Assignment-II

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre - Des	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: The education tour is encouraged to be undertaken by the students under faculty supervision. During or after the semester the tour report shall be submitted to the class coordinator for assessment. The students should be encourage undertaking approx. 04 week summer training in a design / construction/allied office. Alternatively student should also be encouraged to do any online course of similar duration during the summer vacation.	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Understanding	Employability / Entrepreneurship	Sheet work, site study
	v		v		v	v	v	v	v		v	v	v	v	v			

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Rashmi*  
**Director**  
**L.K.G.P.T.U**  
**Mohali Campus-II**

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Name of the Department: Architecture.

Paper UC/BARCH-401/19 Architectural Design-VI

Course Outcome	Program Outcomes										Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j			
CO1: At the end of the course, the students will be able to understand Design of Public Buildings with complex functional demands and technical inputs.	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	Minor Exams, Quiz, End Term Exams
CO2: Nature of urban complexes, scale and other elements of urban design to be incorporated.	V	V	V	V	V	V	V	V	V	V	Application	Employability / Entrepreneurship	Minor Exams, Quiz, End Term Exams
CO3: They will also be well versed with various physical factors of architecture design and equipped with the terms of barrier free design.	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	Minor Exams, Quiz, End Term Exams
Architectural Knowledge	V	V	V	V	V	V	V	V	V	V			
Problem Solving	V	V	V	V	V	V	V	V	V	V			
Design development	V	V	V	V	V	V	V	V	V	V			
Conduct Investigations/ Pre - Des	V	V	V	V	V	V	V	V	V	V			
Use of Modern tool	V	V	V	V	V	V	V	V	V	V			
Socially responsible architecture	V	V	V	V	V	V	V	V	V	V			
Environment and Sustainability	V	V	V	V	V	V	V	V	V	V			
Ethics	V	V	V	V	V	V	V	V	V	V			
Individual and team work	V	V	V	V	V	V	V	V	V	V			
Communication	V	V	V	V	V	V	V	V	V	V			
Management and finance	V	V	V	V	V	V	V	V	V	V			
Life-long Learning	V	V	V	V	V	V	V	V	V	V			
Analysis and Design Skill	V	V	V	V	V	V	V	V	V	V			
Research and Innovation	V	V	V	V	V	V	V	V	V	V			
Sustainable Outlook	V	V	V	V	V	V	V	V	V	V			

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Srinivas*  
**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**

*JS*



Name of the Department: Architecture.

Paper UC/BARCH-602 /19 History of Architecture-III

Course Outcome	Program Outcomes										Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO	
	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j				
CO1: Develop a holistic approach to architecture's integral component of the built environment.	V											Understanding	Employability / Entrepreneurship	Sheet work, site study
CO2: Develop an understanding of architecture as an outcome of various social, political and economic influences and as a response to the cultural and climate conditions.	V											Analysis	Employability / Entrepreneurship	Minor Exams, Quiz, End Term Exams
CO3: Understand the physical experience of buildings in order to appreciate the complexity of the physical and metaphysical influences bearing on architecture.	V											Application	Employability / Entrepreneurship	University end term examinations
Architectural Knowledge	V													
Problem Solving		V												
Design development			V											
Conduct Investigations/ Pre - Des				V										
Use of Modern tool					V									
Socially responsible architecture						V								
Environment and sustainability							V							
Ethics								V						
Individual and team work									V					
Communication										V				
Management and finance											V			
Life-long Learning												V		
Analysis and Design Skill													V	
Research and Innovation														V
Sustainable Outlook														

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**

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Name of the Department: Architecture.

Paper UC/BArch-603 /19 Estimating Costing & Specifications- I

COURSE OUTCOME	Learning Level										Assessment Tools to Measure Attainment of CO				
	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j					
Architectural Knowledge	V														
Problem Solving		V													
Design development			V												
Conduct Investigations/ Pre - Des				V											
Use of Modern tool					V										
Socially responsible architecture						V									
Environment and Sustainability							V								
Ethics								V							
Individual and team work									V						
Communication										V					
Management and finance											V				
Life-long Learning												V			
Analysis and Design Skill													V		
Research and Innovation														V	
Sustainable Outlook															V

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prasanna*

Director  
I.K.G.P.T.U  
Nihalii Campus-II

*J*

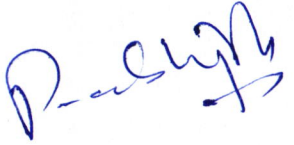
Name of the Department: Architecture.

Paper UC/BARCH-604 /19 Architecture Legislation - I

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will be able to prepare detailed estimates and cost of two-storeyed residential buildings in masonry and reinforced cement concrete	v		v			v	v			v	v	v		v	v	Understanding	Employability / Entrepreneurship	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department



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I.K.G.P.T.U  
Mohali Campus-II



Name of the Department: Architecture.

Paper: U2/BARCH-405 /15 Building Construction & Materials-VI

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO11: At the end of the course student will able to become aware overall intent is to make students understand construction/detailing of work associated with interior finishes and works.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Understanding	Employability/ Entrepreneurship	Sheet work, site study
Architectural Knowledge	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Problem Solving	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Design development	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Conduct Investigations/ Pre - Des	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Use of Modern tool	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Socially responsible architecture	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Environment and Sustainability	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Ethics	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Individual and team work	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Communication	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Management and finance	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Lifelong Learning	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Analysis and Design Skill	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Research and Innovation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Sustainable Outlook	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Pradyumn*  
 Director  
 L.K.G.P.T.U  
 Anaparthi Campus-II

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Name of the Department: Architecture.  
 Paper UC/BArch-406 /19 Structure Design (Project)-IV

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Problem Solving	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Design development	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Conduct Investigations/ Pre - Des	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Use of Modern tool	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Socially responsible architecture	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Environment and Sustainability	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Ethics	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Individual and team work	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Communication	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Management and finance	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Life-long Learning	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Analysis and Design Skill	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Research and Innovation	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study
Sustainable Outlook	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding and	Employability / Entrepreneurship	Sheet work, site study

CO: At the end of the course student will able to become aware overall intent is to make students understand construction detailing of work associated with interior finishes and works.  
 (Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Praveen*  
 Director  
 J.K.G.P.T.U  
 Bahadurpur Campus-II

*23/12*

*12*

Name of the Department: Architecture.

Paper UC/MARCH-407 /19 Building Services-II

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: Know about the working principles of the building.	N	N	N	N	N	N	N	N	Individual	Individual	PCH	PCH	N	N	N	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
CO2: Understand the role of services and would be able to design appropriate space, location for it.	N	N	N	N	N	N	N	N	Individual	Individual	PCH	PCH	N	N	N	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
CO3: Know about the acoustic materials where, how and why we are using these materials	N	N	N	N	N	N	N	N	Team work	Team work	PCH	PCH	N	N	N	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
CO4: Understand the importance of intelligent buildings.	N	N	N	N	N	N	N	N	Individual	Individual	PCH	PCH	N	N	N	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Reddy*

Director  
L.K.G.P.T.U  
Moghal Campus-II

*JS*

Name of the Department: Architecture.

Paper UC/BARCH-407 /19 Building Services-III

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: Know about the working principles of the building.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
CO2: Understand the role of services and would be able to design appropriate space, location for it.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
CO3: Know about the acoustic materials where, how and why we are using these materials	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
CO4: Understand the importance of intelligent buildings.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Architectural Knowledge	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Problem Solving	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Design development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Conduct investigations/ Pre - Des	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Use of Modern tool	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Socially responsible architecture	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Environment and Sustainability	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Ethics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Individual and team work	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Communication	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Management and finance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Life-long Learning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Analysis and Design Skill	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Research and Innovation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination
Sustainable Outlook	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet Work, Mid-Term /End Term Examination

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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**Director  
I.K.G.P.T.U  
Mehuli Campus-II**

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Name of the Department: Architecture.

Paper UC/BARCH-608 /15 Climate & Architecture (Sustainable Design) -III

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge	V															Understanding	Employability / Entrepreneurship	Sheet work, site study
Problem Solving		V																
Design development			V															
Conduct Investigations/ Pre - Des				V														
Use of Modern tool					V													
Socially responsible architecture						V												
Environment and Sustainability							V											
Ethics								V										
Individual and team work									V									
Communication										V								
Management and finance											V							
Life-long Learning												V						
Analysis and Design Skill													V					
Research and Innovation														V				
Sustainable Outlook															V			

CO-1: At the end of the course student will be able to become aware overall intent is to make students understand construction/detailing of work associated with interior finishes and works.

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Director  
I.K.G.P.T.U  
Mumbai Campus-II

*[Handwritten Signature]*



Name of the Department: Architecture.

Paper UC/MACH-419 Mentoring and Professional Development-III

Course Outcome	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: Personality Development and Holistic Development	Understanding	Yes	Individual and Group Presentations and Discussions, Activities
PO-a   Architectural Knowledge			
PO-b   Problem Solving			
PO-c   Design development			
PO-d   Conduct Investigations/ Pre - Des			
PO-e   Use of Modern tool			
PO-f   Socially responsible architecture			
PO-g   Environment and Sustainability			
PO-h   Ethics			
PO-i   Individual and team work			
PO-j   Communication			
PO-k   Management and finance			
PO-l   Life-long Learning			
PO-m   Analysis and Design Skill			
PO-n   Research and Innovation			
PO-o   Sustainable Outlook			

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Director  
I.K.G.P.T.U  
Mehrai Campus-II

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Name of the Department: Architecture.

Paper UC/MACH-701 /29 Practical Training

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO11: At the end of the course, the students will able to learn the intricacies of Architectural Profession by joining and working with practicing Architects/Architectural firms for one complete semester.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Understanding	Employability / Entrepreneurship	Unkertainly/Yes- Voice
Architectural knowledge	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Problem Solving	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Design development	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Product Investigations/ Pre - Des	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Use of Modern tool	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Socially responsible architecture	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Environment and Sustainability	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Ethics	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Individual and team work	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Communication	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Management and finance	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Life-long Learning	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Analysis and Design Skill	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Research and Innovation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			
Sustainable Outlook	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			

(Signature of Head of Department)

Note: Provide Mapping for all courses offered by the Department

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 Director  
 I.K.G.P.U  
 Mohali Campus-II

*[Handwritten Signature]*

Name of the Department: Architecture.

Paper UC/Arch-401 /19 Architectural Design-VII

Course Outcomes	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO 1: At the end of the course, the students will be able to design complex health care academic projects, design for various situations, design terminals of air/railway/bus, design light industrial buildings for different uses.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Architectural Knowledge	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Problem Solving	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Design development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Conduct Investigations/ Pre - Des	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Use of Modern tool	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Socially responsible architecture	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Environment and Sustainability	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Ethics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Individual and team work	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Communication	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Management and finance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Life-long Learning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Analysis and Design Skill	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Research and Innovation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice
Sustainable Outlook	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University Vice-Vice

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Director  
I.K.G.P.T.U  
Mohali Campus-II

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Name of the Department: Architecture.

Paper UC/BARCH-802 /18 Comprehensive Smart Village Development-I

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
At the end of the course, the students will be able to deal with environment, policy making and analysis, governance, and rehabilitation and resettlement issues for smart village development.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Understanding	Employability / Entrepreneurship	Sheet work, site study
Architectural Knowledge	Y																	
Problem Solving		Y																
Design development			Y															
Product investigations/ Pre - Des				Y														
Use of Modern tool					Y													
Socially responsible architecture						Y												
Environment and Sustainability							Y											
Ethics								Y										
Individual and team work									Y									
Communication										Y								
Management and finance											Y							
Life-long Learning												Y						
Analysis and Design Skill													Y					
Research and Innovation														Y				
Sustainable Outlook															Y			

(Signature of Head of Department)

Note: Provide Mapping for all courses offered by the Department

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**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**

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Name of the Department: Architecture.

Paper UC/MARCH-403 /19 Urban Design

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will be able to create awareness and promote understanding of the nature, role and importance of Urban Design in the making of quality Built Environment and Human Settlements.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	Sheet work, site study
Architectural Knowledge	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Problem Solving	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Design development	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Conduct investigations/ Pre - Des	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Use of Modern tool	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Socially responsible architecture	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Environment and Sustainability	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Ethics	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Individual and team work	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Communication	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Management and finance	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Lifelong Learning	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Analysis and Design Skill	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Research and Innovation	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Sustainable Outlook	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Pradeep*

Director  
I.K.G.P.T.U  
Mehali Campus-II

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Name of the Department: Architecture  
 Paper UC/BArch-404 /19 Hours

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO-1: At the end of the course, the students will be able to Analyze what are the flooding issues we are facing. Understand how we can contribute to eliminate this flooding problem.	V															Understanding	Employability / Entrepreneurship	Sheet work, site study
CO-2: Know About what our Government is doing to provide basic comfortable environment for the	V															Understanding	Employability / Entrepreneurship	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

Name of the Department: Architecture.

Paper UC/BArch-405/19 Building Construction & Materials-VII

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Assessment Tools to Measure Attainment of CO
CO11: At the end of the course the students will be able to: submit with special constructional details, finishing & furnishing, extension & expansion joints and basements with details.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	University End Term Examination Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*[Handwritten Signature]*  
 Director  
 L.K.G.P.T.U  
 Bahadrali Campus-II

*[Handwritten Signature]*

Name of the Department: Architecture.

Paper UC/BARCH-406 (A) /19 GIS/ Remote sensing/ Geospatial Technologies/Gematic Techniques for Architects

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: The course will enable the students understand The Principles of Remote sensing, satellite images, and Applications of remote sensing.																		MST, Assignments and End Semester Examination
CO2: The GIS and its Data models.																		MST, Assignments and End Semester Examination
CO3: The Global Navigation Satellite System.																		MST, Assignments and End Semester Examination

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*R. Arif*

Director  
I.K.G.P.T.U  
Mehadi Campus-II

*Arif*



Name of the Department: Architecture.

Paper UC/BARCH-806 (B)/19 Indian Architecture /Vastu Shastra

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1.At the end of the course, the students will able to will be able to Analyze the different principles and systems of vastu shastra.	v		v	v	v	v	v	v	v			v	v	v	v	Understanding	Employability / Entrepreneurship	Sheet work, site study
																	Minor Exams, Quiz, End Term Exams	

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prasanna*  
**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**

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Name of the Department: Architecture.

Paper UC/MARCH-406 (D)/19 Retail Design

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO11: At the end of the course, the students will able to design retail outlets.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship Minor Exams, Quiz, End Term Exams	Sheet work, site study
Architectural Knowledge																		
Problem Solving																		
Design development																		
Conduct Investigations/ Pre - Des																		
Use of Modern tool																		
Socially responsible architecture																		
Environment and Sustainability																		
Ethics																		
Individual and team work																		
Communication																		
Management and finance																		
Life-long Learning																		
Analysis and Design Skill																		
Research and Innovation																		
Sustainable Outlook																		

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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**Director**  
**I.K.G.P.T.U**  
**Mohali Campus**

*[Handwritten Signature]*

Name of the Department: Architecture.

Paper UC/BARCH-406 (E)/19 Advance Structure Systems

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: It addresses the contemporary exterior envelope with an emphasis on their performance attributes and advanced technologies.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	Sheet work, site study
CO2: Understand how we can contribute to eliminate the housing problem. Know about what our	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prasanna*

Director  
I.K.G.P.T.U  
Alphali Campus-II

*[Handwritten signature]*

Name of the Department: Architecture.

Paper UC2/BARCH-307 (A)/19 BUnits

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO11: This course attends to develop an understanding the evolution of settlement planning.																	Street work, site study Minor Exams, Quiz, End Term Exams	
Architectural Knowledge																		
Problem Solving																		
Design development																		
Conduct Investigations/ Pre - Des																		
Use of Modern tool																		
Socially responsible architecture																		
Environment and Sustainability																		
Ethics																		
Individual and team work																		
Communication																		
Management and finance																		
Life-long Learning																		
Analysis and Design Skill																		
Research and Innovation																		
Sustainable Outlook																		

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Director  
I.K.G.P.T.U  
Mumbai Campus-II

*[Handwritten Signature]*

Name of the Department: Architecture.

Paper UC/BARCH-807 (B)/19Art Appreciation

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre - Des	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will able to gain knowledge and understanding of the universal and timeless qualities that identify all great art.	V		V	V	V	V	V	V	V	V		V	V	V	V	Understanding	Employability / Entrepreneurship	Sheet work, site study
CO2: To introduce the students to the importance of art in today's world and the purposes art has served	V		V	V		V	V	V	V	V		V	V	V	V	Application	Employability / Entrepreneurship	Sheet work, site study
CO3: To understand artistic intent and expression through basic element of art and architecture and to increase appreciation of art in today's society.	V		V	V	V	V	V	V	V		V	V	V	V	V	Analysis	Employability / Entrepreneurship	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*D. Singh*  
**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**

*Singh*

Name of the Department: Architecture.

Paper UC/BAECH-807 (C)/19 Industrial / Prehab Technologies

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will able to describe various structural systems and standard organizing requirements.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	Sheet work, site study
CO2: Identify and differentiate structural behaviour of building elements, Design building elements and	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Application	Employability / Entrepreneurship	Sheet work, site study
CO3: Identify and describe working principles of various joints, Design and detail precast and activities by innovation.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Analysis	Employability / Entrepreneurship	Sheet work, site study
Architectural Knowledge	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Problem Solving	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Design development	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Conduct Investigations/ Pre - Des	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Use of Modern tool	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Socially responsible architecture	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Environment and Sustainability	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Ethics	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Individual and team work	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Communication	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Management and finance	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Life-long Learning	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Analysis and Design Skill	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Research and Innovation	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			
Sustainable Outlook	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V			

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*[Handwritten Signature]*

Director  
I.K.G.P.T.U  
Mubalai Campus-II

*[Handwritten Signature]*





Name of the Department: Architecture.

Paper UC/BARCH-407 (E)/19 Building Information Modelling (BIM)/ Advance Computer Software's

COURSE OUTCOME	POs										Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j			
CO-1: At the end of the course, the students will be able to understand that BIM is used to collaborate between engineers, owners, architects and contractors in a three dimensional environment (common data environment), and it shares information across these disciplines.	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	Sheet work, site study
CO-2: BIM is the management of information through the whole life cycle of a built asset, from initial design all the way through to construction, maintaining and finally de-commissioning.	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*[Handwritten Signature]*  
 Director  
 I.K.G.P.T.U  
 Mangalajodi Campus-II

*[Handwritten Signature]*

Name of the Department: Architecture.

Paper UC/BATCH-808 A- E /19 Open Elective- III/Module Swayam

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge	A															Understanding	Employability / Entrepreneurship	Sheet work, site study
Problem Solving	A																	
Design development	A																	
Conduct Investigations/ Pre - Des	A																	
Use of Modern tool	A																	
Socially responsible architecture	A																	
Environment and Sustainability	A																	
Ethics	A																	
Individual and team work	A																	
Communication	A																	
Management and finance	A																	
Life-long Learning	A																	
Analysis and Design Skill	A																	
Research and Innovation	A																	
Sustainable Outlook	A																	

CO1: The list of major domain of MDDC's courses are attached in the priciple & the department will have a MDDC coordinator who will display the list of MDDC in every semester.

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*[Handwritten Signature]*  
**Director**  
**I.K.G.P.T.U**  
**Alphaha Campus-II**

*[Handwritten Signature]*

Name of the Department: Architecture.

Paper UC/BARCH-901 /19 Architectural Design -VIII

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will be able to Design large scale campus environments with efficient circulation and understanding the significance of user experience in built environments.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	University End Term Examination
CO2: Evolve design focusing on form generation and appropriate structural system.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Application	Employability / Entrepreneurship	University End Term Examination
CO3: Conduct simple architectural research as the basis for architectural design projects. Develop skills to design large urban level built environments and perceive future needs.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Application	Employability / Entrepreneurship	University End Term Examination

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Ashish*  
 Director  
 L.K.G.P.T.U  
 Gobali Campus-II

*2021*

Name of the Department: Architecture.

Paper UC/BARCH-902 /19 Research Methodology & Dissertation

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge	V															Understanding	Employability / Entrepreneurship	Sheet work, site study
Problem Solving	V															Understanding	Employability / Entrepreneurship	
Design development	V															Understanding	Employability / Entrepreneurship	
Conduct Investigations/ Pre - Des	V															Understanding	Employability / Entrepreneurship	
Use of Modern tool	V															Understanding	Employability / Entrepreneurship	
Socially responsible architecture	V															Understanding	Employability / Entrepreneurship	
Environment and Sustainability	V															Understanding	Employability / Entrepreneurship	
Ethics	V															Understanding	Employability / Entrepreneurship	
Individual and team work	V															Understanding	Employability / Entrepreneurship	
Communication	V															Understanding	Employability / Entrepreneurship	
Management and finance	V															Understanding	Employability / Entrepreneurship	
Life-long Learning	V															Understanding	Employability / Entrepreneurship	
Analysis and Design Skill	V															Understanding	Employability / Entrepreneurship	
Research and Innovation	V															Understanding	Employability / Entrepreneurship	
Sustainable Outlook	V															Understanding	Employability / Entrepreneurship	

CO1: The end of the course, the students will able to - explain key research concepts and issues, read, comprehend, and explain research articles in their academic discipline.

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*[Handwritten Signature]*  
 Director  
 I.K.G.P.U.D  
 Jhohali Campus-II

*[Handwritten Signature]*

Name of the Department: Architecture.

Paper UC/BARCH-903 /15 Construction Management

COURSE DESCRIPTION		Focus on Employability / Entrepreneurship										Assessment Tools to Measure Attainment of CO						
CO1:At the end of the course, the students will able to Do CPM analysis, Control cost of the project, know about their role in construction industry. Know about safety and quality.		PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Understanding
Architectural Knowledge		V																
Problem Solving																		
Design development																		
Conduct Investigations/ Pre - Des																		
Use of Modern tool																		
Socially responsible architecture																		
Environment and Sustainability																		
Ethics																		
Individual and team work																		
Communication																		
Management and finance																		
Life-long Learning																		
Analysis and Design Skill																		
Research and Innovation																		
Sustainable Outlook																		

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Director  
I.K.G.P.T.U  
Mehuli Campus-II

*[Handwritten Signature]*

Name of the Department: Architecture.

Paper UC/BArch-904 /29 Building Construction & Materials-VIII

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet work, site study
Problem Solving	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	
Design development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	
Conduct Investigations/ Pre - Des	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	
Use of Modern tool	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	
Socially responsible architecture	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	
Environment and Sustainability	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	
Ethics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	
Individual and team work	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	
Communication	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	
Management and finance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	
Life-long Learning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	
Analysis and Design Skill	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	
Research and Innovation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	
Sustainable Outlook	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	

CO1: At the end of the course, the students will be able to make students aware and familiar with specific construction details involving finishing, erection and expansion joints and basements with detail.

(Signature of Head of Department)

Note: Provide Mapping for all courses offered by the Department

*[Handwritten Signature]*

Director  
L.K.G.P.U  
Mumbai Campus-II

*[Handwritten Signature]*

Name of the Department: Architecture.

Paper UC/BARCH- 905 (A) Town & Country Planning

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre - Des	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will able to will be able To make students aware and familiar with special constructional details involving finishing and furnishing, extension and expansion joints and basements with details.	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Understanding and A	yes	Mid term exam, sheets, end term exam
	√	√	√		√	√	√	√	√		√	√	√					

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prashant*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

*Yoz*

Name of the Department: Architecture.  
 Paper UC/BARCH- 905 (B) Art & Architecture

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
At the end of the course, the students will able to – explain key research concepts of Art in Architecture.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Employability / Entrepreneurship	Sheet work, site study
Architectural Knowledge	✓																	
Problem Solving		✓																
Design development			✓															
Conduct investigations/ Pre - Des				✓														
Use of Modern tool					✓													
Socially responsible architecture						✓												
Environment and Sustainability							✓											
Ethics								✓										
Individual and team work									✓									
Communication										✓								
Management and finance											✓							
Lifelong Learning												✓						
Analysis and Design Skill													✓					
Research and Innovation														✓				
Sustainable Outlook															✓			

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. S. Chitambar*  
 Director  
 I.K.G.P.T.U  
 Nibhali Campus-II

*Chitambar*



Name of the Department: Architecture.  
 Paper UC/BAICH- 905 (C) Building Maintenance

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Problem Solving	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Design development	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Conduct Investigations/ Pre - Des	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Use of Modern tool	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Socially responsible architecture	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Environment and Sustainability	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Ethics	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Individual and team work	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Communication	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Management and finance	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Life-long Learning	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Analysis and Design Skill	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Research and Innovation	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination
Sustainable Outlook	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Understanding	Employability / Entrepreneurship	University End Term Examination

CO11: At the end of the course, the students will able to - Comp ehend the concept of retrofitting in buildings, its needs and methods. Acquire knowledge on the various techniques of retrofitting for various building components like beams, slabs, column etc.

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. S. Srinivas*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

*P. S. Srinivas*

Name of the Department: Architecture.

Paper UC/BARCH - 905 (D) Graphics & Communication Design

Course Outcome	PO-3	PO-B	PO-C	PO-D	PO-E	PO-F	PO-G	PO-H	PO-I	PO-J	PO-K	PO-L	PO-M	PO-N	PO-O	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge	N															Understanding	Employability / Entrepreneurship	Sheet work, site study
Problem Solving	N																	
Design development	N																	
Conduct Investigations/ Pre - Des	N																	
Use of Modern tool	N																	
Socially responsible architecture	N																	
Environment and Sustainability	N																	
Ethics	N																	
Individual and team work	N																	
Communication	N																	
Management and finance	N																	
Life-long Learning	N																	
Analysis and Design Skill	N																	
Research and Innovation	N																	
Sustainable Outlook	N																	

CO1: Detailing syllabus for the subject shall be finalized on year to year basis depending upon the expertise available. The experts in the field will deliver lectures and demonstrate the latest techniques for development of skills.

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Dr. G. R. Prasad*

Director  
Maddur Campus-II

*For*

Name of the Department: Architecture.  
 Paper UC/BARCH- 902 (E) Advance Digital Architecture

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge	V															Understanding	Employability / Entrepreneurship	Sheet work, site study
Problem Solving		V																
Design development			V															
Conduct Investigations/ Pre - Des				V														
Use of Modern tool					V													
Socially responsible architecture						V												
Environment and Sustainability							V											
Ethics								V										
Individual and team work									V									
Communication										V								
Management and finance											V							
Life-long Learning												V						
Analysis and Design Skill													V					
Research and Innovation														V				
Sustainable Outlook															V			

COURSE Outcome  
 CO-04 At the end of the course, the students will able to - understand the fundamentals of digital architecture with the help of application to software.

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. G. Pillay*  
 Professor  
 I.T.G.P.T.U  
 Mohali Campus-II

*for*

Name of the Department: Architecture.  
 Paper UC/BARCH-906 (A) Traffic & Transportation

Course Outcomes	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural knowledge	V															Understanding	Employability / Entrepreneurship	Minor Exams, Quiz, End Term Exams
Problem Solving		V																
Design development			V															
Conduct Investigations/ Pre - Des				V														
Use of Modern tool					V													
Socially responsible architecture						V												
Environment and Sustainability							V											
Ethics								V										
Individual and team work									V									
Communication										V								
Management and finance											V							
Life-long Learning												V						
Analysis and Design Skill													V					
Research and Innovation														V				
Sustainable Outlook															V			

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Handwritten Signature*  
 Director  
 LK.G.P.T.U  
 Malabar Campus-II

*Handwritten Signature*

Name of the Department: Architecture.

Paper UC/BArch- 506 (B) Contemporary Indian Architecture (Modern Trends)

Course Outcome	Learning Level										Assessment Tools to Measure Attainment of CO	
	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j		PO-k
At the end of the course, the students will able to - Ability to understand the role of societal developments as predictors or change in architectural paradigms through the study of Modern Architecture in the sub continent and contemporary architecture of India and the world.	A	A	A	A	A	A	A	A	A	A	A	A
Architectural Knowledge	A	A	A	A	A	A	A	A	A	A	A	A
Problem Solving	A	A	A	A	A	A	A	A	A	A	A	A
Design development	A	A	A	A	A	A	A	A	A	A	A	A
Conduct Investigations/ Pre - Des	A	A	A	A	A	A	A	A	A	A	A	A
Use of Modern tool	A	A	A	A	A	A	A	A	A	A	A	A
Socially responsible architecture	A	A	A	A	A	A	A	A	A	A	A	A
Environment and Sustainability	A	A	A	A	A	A	A	A	A	A	A	A
ethics	A	A	A	A	A	A	A	A	A	A	A	A
Individual and team work	A	A	A	A	A	A	A	A	A	A	A	A
Communication	A	A	A	A	A	A	A	A	A	A	A	A
Management and finance	A	A	A	A	A	A	A	A	A	A	A	A
Life-long Learning	A	A	A	A	A	A	A	A	A	A	A	A
Analysis and Design Skill	A	A	A	A	A	A	A	A	A	A	A	A
Research and Innovation	A	A	A	A	A	A	A	A	A	A	A	A
Sustainable Outlook	A	A	A	A	A	A	A	A	A	A	A	A

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Director  
I.K.G.P.T.U  
Mohali Campus-II

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1.1.2

Name of the Department: Architecture.

Paper UC/BArch- 906 (C) Building System Integration & Management

COURSE OUTCOME CO: At the end of the course, the students will able to- Understanding of approach for effective energy management in building through automated systems and sensors.	Focus on Employability / Entrepreneurship										Assessment Tools to Measure Attainment of CO Sheet work, site study	
	PC-a	PO-b	PC-c	PO-d	PC-e	PO-e	PC-f	PO-f	PO-g	PO-h		PO-i
Architectural Knowledge	N											
Problem Solving												
Design development												
Conduct Investigations/ Pre - Des												
Use of Modern tool												
Socially responsible architecture												
Environment and Sustainability												
Ethics												
Individual and team work												
Communication												
Management and finance												
Life-long Learning												
Analysis and Design Skill												
Research and Innovation												
Sustainable Outlook												

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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**Director**  
**L.K.G.P.T.U**  
**Mohali Campus-II**

*[Handwritten Signature]*

Name of the Department: Architecture.  
 Paper UC/BAIICH- 906 (D) Cost effective Construction

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge	V															Understanding	Employability / Entrepreneurship	Sheet work, site study
Problem Solving	V																	
Design development		V																
Conduct Investigations/ Pre - Des			V															
Use of Modern tool				V														
Socially responsible architecture					V													
Environment and Sustainability						V												
Ethics							V											
Individual and team work								V										
Communication									V									
Management and finance										V								
Life-long Learning											V							
Analysis and Design Skill												V						
Research and Innovation													V					
Sustainable Outlook														V				

Course Outcome: At the end of the course, the students will able to - understand the Law Cost Building, techniques in architecture.

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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 Director  
 I.K.G.P.T.U  
 Mubthalai Campus-II

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Name of the Department: Architecture.

Paper UC/BARCH- 906 (E) Building Industry

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:At the end of the course, the students will able to gain the knowledge of building industry.	v		v	v	v	v	v	v	v	v	v	v	v	v	v	Understanding	Employability / Entrepreneurship	Sheet work, site study
																	Minor Exams, Quiz, End Term Exams	

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Rashmi*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

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Name of the Department: Architecture.

Paper UC/BARCH- 907 (A)-907 (E)/19 Open Elective- IV/Mooc Swayam

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge																		
Problem Solving																		
Design development																		
Conduct Investigations/ Pre - Des																		
Use of Modern tool																		
Socially responsible architecture																		
Environment and Sustainability																		
Ethics																		
Individual and team work																		
Communication																		
Management and finance																		
Life-long Learning																		
Analysis and Design Skill																		
Research and Innovation																		
Sustainable Outlook																		
CO1: The list of major domain of MOOC's courses are attached in the preamble & the department will have a MOOC coordinator who will display the list of MOOC in every semester.	✓		✓	✓	✓	✓	✓	✓	✓				✓	✓		Understanding	Employability / Entrepreneurship	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Dr. G. S. M.*  
 Director  
 L.K.G.P.T.U  
 Mohali Campus-II

*Sharma*

Name of the Department: Architecture  
 Paper UC/BArch- 200/13 Educational Tour III/Summer Training III/Vacation Assignment-III

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: The education tour to one day to one of two week duration be encouraged to be undertaken by the students under faculty supervision. During or after the semester the term report shall be submitted to the class coordinator for assessment.	✓															Understanding		Sheet work, site study
		✓																
			✓															
				✓														
					✓													
						✓												
							✓											
								✓										
									✓									
										✓								
											✓							
												✓						
													✓					
														✓				

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

Director  
 I.K.G.P.T.U  
 Patel Campus-II

*Pradyumn*

*[Signature]*

Name of the Department: Architecture.

Paper UC/BARCH-1001/19 Architectural Design (Thesis Project)-IX

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability/ Entrepreneurship	Assessment Tools to Measure Attainment of CO
Architectural Knowledge	Y															Understanding	Employability / Entrepreneurship	Sheet work, site study
Problem Solving		Y																
Design development			Y															
Conduct Investigations/ Pre - Des				Y														
Use of Modern tool					Y													
Socially responsible architecture						Y												
Environment and Sustainability							Y											
Ethics								Y										
Individual and team work									Y									
Communication										Y								
Management and finance											Y							
Life-long Learning												Y						
Analysis and Design Skill													Y					
Research and Innovation														Y				
Sustainable Outlook															Y			

CO1: At the end of the course, the students will able to design social and physical environment and methods of construction in.

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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**Director  
L.K.G.P.T.U  
Mohali Campus-II**

Name of the Department: Architecture.

Paper UC/BARCH-1002/19 Professional Practice

Course Outcome	Learning Level										Assessment Tools to Measure Attainment of CO					
	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j		PO-k	PO-l	PO-m	PO-n	PO-o
CO1: At the end of the course, the students will able to: Become aware and understand the professional and legal aspects of architectural practice and profession in India.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Sheet work, site study
CO2: Understand the duties and liabilities of an architect, his client and the contractor with respect to the practice	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Sheet work, site study
CO3: Become aware of Arbitration and laws pertaining to it, Valuation and its application in the professional practice	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Sheet work, site study
CO4: Understand the Tendering & Contract process applicable to the architectural profession.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses offered by the Department

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Director  
L.K.G.P.T.U  
Mofalad Campus-II

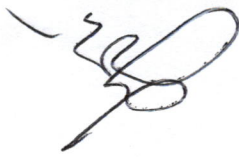
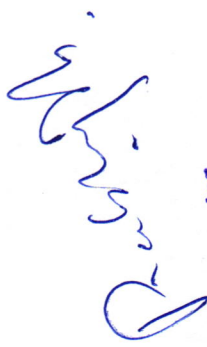
Name of the Department: Architecture.

Paper UC/BARCH-1003/19 Disaster Management

Course Outcome	Program Outcomes										Assessment Tools to Measure Attainment of CO						
	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j		PO-k	PO-l	PO-m	PO-n	PO-o	PO-p
CO1: At the end of the course, the students will be able to - understand various types of disasters their causes, significance and effects of disaster																	
CO2: Students will gain an understanding of various Disaster Preparedness, Response, management and																	

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

Director  
I.K.G.P.T.U  
Muzaffar Ali Campus-II

Name of the Department: Architecture.  
 Paper UC/ARCH-3004 (A) Building Economics

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will able to, Recognize mud as an alternate material and to understand its properties and construction techniques.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	University End Term Examination
CO2: Comprehend the various types of alternate construction blocks.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Application	Employability / Entrepreneurship	University End Term Examination
CO3: Gain knowledge on the applications of natural materials such as bamboo and straw in building construction.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Application	Employability / Entrepreneurship	University End Term Examination
CO4: Appreciate the applications of alternate cement based building materials.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Analysis	Employability / Entrepreneurship	University End Term Examination
CO5: Critically analyze the cost effective construction techniques through case studies.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Analysis	Employability / Entrepreneurship	University End Term Examination

Note: Provide Mapping for all courses of all programs offered by the Department

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 Head of Department  
 J.K.G.P.T.U  
 Mahabali Campus-II

Name of the Department: Architecture.

Paper UC/BArch-1004 (B) Contemporary World Architecture

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will able to - Knowledge about contemporary phase of architecture.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	Sheet work, site study
CO2: Understanding of current trends and styles in architecture.	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	Understanding	Employability / Entrepreneurship	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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**Director  
I.K.G.P.T.U  
Mehali Campus-II**

Name of the Department: Architecture.

Paper UC/BARCH-1004 (C) High Rise Buildings

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1.1. At the end of the course, the students will able to – Relate the performance of buildings subjected to various loadings and examine the significance of diverse structural components in a high-rise structure.	v		v										v		v	Understanding	Employability / Entrepreneurship	Sheet work, site study
CO2.2.Safeguard the stability of a structure through approximate methods.	v				v								v			Understanding	Employability / Entrepreneurship	Sheet work, site study
CO3.3.Understand the importance of service core design and analyse the relation of service planning.	v	v			v	v	v	v	v	v	v	v				Understanding	Employability / Entrepreneurship	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

Understand Employment Sheet work, site study

*Prashant*  
**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**

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Name of the Department: Architecture.

Paper UC/BARCH-1004 (D) Architecture Journalism & Photography

	Architectural Knowledge	Problem Solving	Design development	Conduct Investigations/ Pre - Des	Use of Modern tool	Socially responsible architecture	Environment and Sustainability	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Design Skill	Research and Innovation	Sustainable Outlook			
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: Detailed syllabus for the subject shall be finalized on year to year	√		√	√	√	√	√	√	√	√		√	√	√	√	Understan	Employability / Entrepreneurship	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Jyoti*

*Rashmi*

Director  
I.K.G.P.T.U  
Mehali Campus-II

Name of the Department: Architecture.

Paper UC/BARCH-1004 (E) Futuristic Architecture

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will be able to use the knowledge of futuristic material and architecture in the projects.	√		√	√	√	√	√	√	√	√		√	√	√	√	Understanding	Employability / Entrepreneurship	Sheet work, site study

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(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Jyo li*

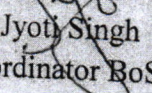
*P. S. Singh*

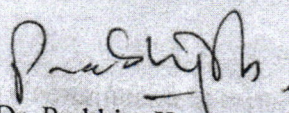
Director  
I.K.G.P.T.U  
Mubali Campus-II


2. In the syllabus of M. Planning IV<sup>th</sup> semester, it was suggested to increase the credits of M. Planning final thesis from 15 to 19. Further, it was suggested that it should be desirable that students shall publish a research paper from their thesis in peer reviewed Journals/Conference proceedings etc. In line with M. Arch IV<sup>th</sup> semester syllabus. Changes were made and syllabus is attached as Annexure-II
3. It was informed by chairperson that institute is in process of approval of M. Planning course from ITPI, New Delhi and it is the requirement that word planning shall be added to the nomenclature of Department, BoS, and Faculty etc. It was further discussed that there is a possibility of commencement of Design related courses at Mohali Campus-II in near future. BoS members were apprised of 15 years plan submitted earlier to the University. In view of this it was suggested that BoS shall be redesignated as **BoS Architecture, Planning & Design**.
4. The expert members discussed that in view of the vast syllabus of the theory subjects, in terms of contemporary needs many a times question papers set up by examiners are not specific. The chairperson informed the esteemed members that it has been proposed in the syllabus of the theory subjects to submit the question bank within one month of commencement of semester by the concerned faculty to the HoD architecture, who further shall be submitting the same to the Controller examination. This practice will be very beneficial for improving the quality of teaching and evaluation. For this suggestion, members were of opinion that all prepared Question Banks shall be submitted in next BoS meeting for information. The entire exercise is to incorporate the contemporary needs of the profession in teaching process.

The agenda taken up by BoS chairperson was approved by members BoS.

The meeting ended with vote of thanks to the chair.

  
Ar. Jyoti Singh  
Coordinator BoS (Arch)

  
Dr. Prabhjot Kaur,  
(Director) Chairperson BoS



**Name of the Department: M.Arch  
(Architecture Education & Research)**

Paper UC/MARCH-101/20 Studio I

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n			
CO1: Have a fairly good idea of the scenario of architecture education in the country	√		√		√		√	√	√		Understanding	yes	Sheet work, site study
CO 2: Understand the basic issues and challenges of imparting Architecture Education in India.		√		√		√	√	√		√	Application	yes	MST Exams, Quiz, End Term Exams
CO 3: They will also be clear about the perception of society (general public) about the Architecture and architect and the role and responsibility & the need to update Architecture education continuously to cope with dynamic practice.	√		√		√		√	√	√	√	Analysis	yes	MST Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prashant*

**Director  
L.K.G.P.T.U  
Mohali Campus-II**

*Jan*

**Name of the Department:**  
**M.Arch (Architecture**  
**Education & Research)**

Paper UC/MARCH-102/20 Contemporary  
 Architecture- I

	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation			
Course Outcome	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: Understand various trends of contemporary architecture in their immediate surroundings.		v		v		v	v	v			Understanding	yes	Sheet work, site study
CO 2: It will be possible To identify & point out various influences (social, political, cultural, etc) on the architecture of India in general & northern region in particular.	v		v	v	v	v	v		v	v	Application	yes	Minor Exams, Quiz, End Term Exams
CO 3: They will understand the impact of globalization and the contribution of material & new technologies in shaping the architecture.		v			v			v			Analysis	yes	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prabhat*

Director  
 L.K.G.P.T.U  
 Mohali Campus-II

Name of the Department: M.Arch  
(Architecture Education & Research)

Paper UC/MARCH-103/20 Educational Technology

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible architecture	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n			
CO1: Incorporate innovative instructional technologies through project-based activities.	√			√	√		√	√	√		Application, Understanding	yes	Sheet work, site study
CO 2: Collaborate in online discussions about the field of educational technology.		√	√						√		Application	yes	Minor Exams, Quiz, End Term Exams
CO 3: Synthesize information from various texts and online sources				√	√	√		√		√	Analysis	yes	Minor Exams, Quiz, End Term Exams
CO 4: Deliver oral presentation through collaborative, online learning software applications.		√		√			√		√		Analysis	yes	Minor Exams, Quiz, End Term Exams
CO 5: Be equipped to prepare MOOC'S	√		√				√	√			Application, Understanding	yes	

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Ashish*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

**Name of the Department: M.Arch  
(Architecture Education & Research)**

**Paper UC/MARCH-104/20 Research Methodology - I**

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n			
CO1:1. Design framework/ techniques for the research process	√		√		√	√	√	√	√		Understanding	YES	Sheet work, site study
CO 2: 2. Demonstrate knowledge of research processes (reading, evaluating, and developing)		√		√				√		√	Application	YES	Minor Exams, Quiz, End Term Exams
CO 3: 3. Perform literature reviews using print and online databases	√		√			√		√			Analysis	YES	Minor Exams, Quiz, End Term Exams
CO 4: 4. Explain the rationale for research ethics		√			√	√		√	√		Analysis	YES	Minor Exams, Quiz, End Term Exams
CO 5: 5. Formulate the research in the form of thesis/ report				√			√	√			Application	YES	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Director  
L.K.G.P.T.U  
Mohali Campus-II

**Name of the Department: M.Arch  
(Architecture Education & Research)**

Paper UC/MARCH/ PE-106-10/20 Fundamentals of the built environment and resource conservation

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n			
CO1:1. Ability to identify the sustainability of the built environment.	√	√		√		√	√		√		Understanding	YES	Sheet work, site study
CO 2: 2. Ability to identify the best practice in sustainable development.	√		√		√		√		√		Application	YES	Minor Exams, Quiz, End Term Exams
CO 3: 3. Ability to evaluate and form a proposal of an existing urban development based on the concept of sustainable development.	√	√		√		√	√	√		√	Analysis	YES	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**



Name of the Department: M.Arch  
(Architecture Education & Research)

Paper UC/MARCH-201/20 Studio II

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible architecture	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n			
CO1:1. At the end of the course, the students will able to Differentiate between various models of architecture education prevalent world over.	√		√	√	√	√		√	√		Understanding	YES	Sheet work, site study
CO 2: 2. Thoroughly understand the broad curriculum of major Indian schools of Architecture institutes of national		√	√		√		√	√		√	Application	YES	Minor Exams, Quiz, End Term Exams
CO 3: 3. Understand Pedagogy and establish its relation with Architecture.	√			√		√			√		Analysis	YES	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

Name of the Department: M.Arch  
(Architecture Education & Research)

Paper UC/MARCH-202/20 Dissertation- I

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible architecture	Ethics	Individual and team	Life-long Learning	Analysis and Design Skill	Research and Innovation	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n			
CO1:1. Able to formulate any research project & present it in the standard format.	√	√	√	√	√	√	√	√	√	√	Understanding		Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Director  
I.K.G.P.T.U  
Mohali Campus-II

Name of the Department: M.Arch  
(Architecture Education & Research)

Paper UC/MARCH-203/20 Psychology of Learning and Teaching

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n			
CO1:1. At the end of the course, the students will able to equip the students with the psychological theories and techniques of learning, motivation, and creativity, hence adding to teaching skills.	v	v	v		v	v		v		v	Understanding	YES	Sheet work, site study
CO 2: 2. Apply learning theories and models to classroom situations		v		v			v	v	v		Application	YES	Minor Exams, Quiz, End Term Exams
CO 3: 3. Compare and contrast the various factors that cognitive, behavioural, and humanistic theorists believe influence the learning process.	v		v		v	v		v		v	Analysis	YES	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

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*[Handwritten Signature]*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

Note: Provide Mapping for all courses of all programs offered by the Department

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**Name of the Department: M.Arch  
(Architecture Education & Research)**

**Paper UC/MARCH-204/20 Architecture Research  
Methodology - II**

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n			
CO1:1. At the end of the course, the students will able to develop the skill to identify, translate, and interpret issues relating to an architecture based on research inquiry methods.	√		√	√		√	√	√	√		Understanding	YES	Sheet work, site study
CO 2: 2. The student will gain knowledge of different methods of conducting research and research writing.	√	√			√	√		√		√	Application	YES	Minor Exams, Quiz, End Term Exams
CO 3: 3. An ability to craft a thesis statement and produce an appropriate program of inquiry.	√			√		√	√				Analysis	YES	Minor Exams, Quiz, End Term Exams
CO 4: 4. An ability to evaluate and apply information.	√		√		√			√		√	Analysis	YES	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prathy*  
Director  
I.K.G.P.T.U  
Mabali Campus-II

Name of the Department: M.Arch  
(Architecture Education & Research)

Paper UC/MARCH-206-10/20 Elective I (Architecture Appreciation)

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n			
CO1:1. After the completion, of course, the students will be able to Explore and understand the traditional architecture in the Indian context regarding the six major climatic zones prevalent in the country and appreciate the centuries-old wisdom of creating a Human Responsive Built Environment.	v	v		v			v	v		v	Understanding	YES	Sheet work, site study
CO 2: 2. Generate and utilize the information for use in design decisions.	v		v		v	v			v		Application	YES	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prashant*

Director  
I.K.G.P.T.U  
Mohali Campus-II

*for*

Name of the Department: M.Arch  
(Architecture Education & Research)

Paper UC/MARCH-301/20 Studio - III

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n			
CO1:1. At the end of the course, the students will be able to have a fairly good idea of the scenario of architecture education in the country.	√		√		√		√	√	√	√	Understanding	YES	Sheet work, site study
Curriculum prescribed as [per CoA regulations and compare them in detail for various types of architecture institute.		√		√		√		√		√	Application	YES	Minor Exams, Quiz, End Term Exams
CO 3: 3. Understand the basic issues and challenges Higher Education Scenario with special focus on Technical / Arch Education because of the Education	√		√		√		√	√	√		Analysis	YES	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prashant M.*  
Director  
I.K.G.P.T.U  
Mohali Campus-II

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Name of the Department: M.Arch (Architecture Education & Research)

PaperUC/MARCH-302/20 Architecture Appreciation

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n			
CO1:1. After the completion of course, the students will be able to 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.	✓	✓		✓	✓	✓	✓	✓	✓	✓	Understanding	YES	Sheet work, site study
CO 2: 2. Generate and utilize information for use in design decisions.	✓		✓	✓	✓			✓	✓	✓	Application	YES	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Srinivas*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

*John*

*sk*

Name of the Department: M.Arch  
(Architecture Education & Research)

Paper UC/MARCH-303/20 Instructional methods

Course Outcome	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible architecture	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n			
CO1:1. At the end of the course, the students will able to Incorporate innovative instructional technologies through project-based activities.	✓			✓		✓		✓	✓	✓	Understanding		Sheet work, site study
CO 2: 2. Develops methods/strategies that encourage self-directed thinking and learning in nurturing and supportive		✓	✓		✓		✓		✓		Application	YES	Minor Exams, Quiz, End Term Exams
CO 3: 3. Deliver oral presentation through collaborative, online learning software applications.			✓	✓		✓		✓			Analysis	YES	Minor Exams, Quiz, End Term Exams
CO 4: 4. To make the students learn the techniques and skill of conducting teaching in the formal classroom.	✓				✓			✓		✓	Analysis	YES	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Ashy M.*  
Director  
I.K.G.P.T.U  
Mohali Campus-II



Name of the Department: M.Arch  
(Architecture Education & Research)

Paper UC/MARCH-304/20 \* Educational Tour  
I/Summer Training-I / Vacation Assignment-I

	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible architecture	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation			
Course Outcome	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-B	PSO-n	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. The education tour to one day to one or two-week duration be encouraged to be undertaken by the students under faculty supervision. During or after the semester the term report shall be submitted to the class coordinator for assessment.	√	√	√	√	√	√	√	√	√	√	Understanding	YES	Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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*[Handwritten signature]*  
Director  
I.K.G.P.T.U  
Mohali Campus-II

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Name of the Department: M.Arch  
(Architecture Education & Research)

Paper UC/MARCH-305-10 /20 Professional Elective- I  
Guidance and Counselling

Course Outcome	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. : At the end of the course, the students will able to Develop the skill of administration and interpretation of psychological tests.	v	v	v	v	v	v	v	v	v	v	Understanding	YES	Sheet work, site study, End term exam and assignment

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Jyoti*

*Prabhu*  
Director  
I.K.G.P.T.U  
Mohali Campus-II

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Name of the Department: M.Arch  
(Architecture Education & Research)

Paper UC/MARCH-309/19 Open Elective- I Digital  
Architecture

	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible architecture	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation			
Course Outcome	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. At the end of the course, the students will be able to develop an understanding of the various digital software used in Architecture.	√	√	√	√	√	√	√	√	√	√	Understanding, Application and Analysis	Yes	Project, Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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*Jyoti*

*Prabir*  
Director  
I.K.G.P.T.U  
Mohali Campus-II

Name of the Department: M.Arch (Architecture Education & Research)

Paper UC/MARCH-311-15 /20 Open Elective- I Life Skill /Soft Skill

	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible architecture	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation			
Course Outcome	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. : At the end of the course, the students will able to Develop an awareness of the self and apply well-defined techniques to cope with emotions and stress.	√		√		√		√		√		Understanding		Sheet work, site study
CO2:2. Use appropriate thinking and problem-solving techniques to solve new problems.		√		√		√		√		√	Application	YES	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prashant*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

*K*

*Jyoti*

Name of the Department: M.Arch (Architecture Education & Research)

Paper UC/MARCH-308/19 Open Elective- I GREEN BUILDINGS

	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible architecture	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation			
Course Outcome	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. At the end of the course, the students will able to Identify major challenges facing the planet earth and human society	v		v		v		v		v		Understanding	YES	Sheet work, site study
CO2:2. Perform detail performance evaluation of a building based on green rating standards.		v		v		v		v		v	Application	YES	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

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**Name of the Department: M.Arch  
(Architecture Education & Research)**

**Paper UC/MARCH-401/20 Teaching Practice  
(Institutional Experience)**

	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible architecture	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation			
Course Outcome	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. The subject aims to culminate all teaching procedures, techniques, and experiences learned and practiced in an array of subjects undertaken during the course.	√	√	√	√	√	√	√	√	√	√	Understanding, Application and Analysis	Yes	Record of training, report, Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**

Name of the Department: M.Arch  
(Architecture Education & Research)

Paper UC/MARCH-402/20 Dissertation-II

	Architectural Knowledge	Problem Solving	Design development	Use of Modern tool	Socially responsible architecture	Ethics	Individual and team work	Life-long Learning	Analysis and Design Skill	Research and Innovation			
Course Outcome	PO-a	PO-b	PO-c	PO-e	PO-f	PO-h	PO-i	PO-l	PSO-m	PSO-n	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. To understand and Analysis the project and find the solution.	v	v	v	v	v	v	v	v	v	v	Understanding, Application and Analysis	Yes	Thesis report, Sheet work, site study

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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 Director  
 I.K.G.P.T.U  
 Mohali Campus-II



Name of the Department: M.Plan

Paper UC-MURP101 Planning Studio -

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: To enable the students to understand the socio-economic and political context along with the land-use dynamics of the study area in relation to the city. The focus of this studio will be to develop the students' skills in area appreciation and mapping techniques.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			Analysis	Yes	Sheet work, site study, Minor Exams, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Reddy*  
 Director  
 I.K.G.P.T.U  
 Mobali Campus-II

Name of the Department: M.Plan

Paper UC-MURP102

Geoinformatics Systems - I

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: To introduce the information systems and develop basic computing skills relevant to planning			✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	Understanding	Yes	Minor Exams, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department


*Rudhraj M.*  
**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**

*Bo*

Name of the Department: M.Plan

Paper UC-MURP103 History of Human Settlements

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: To equip the students with the required knowledge of conventional and contemporary planning thought, pluralistic nature of values in the profession, planning approaches and models. And to focus on integrating procedural and substantive elements of planning theory to current and future planning practices.			✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	Understanding		Minor Exams, End Term Exams

  
(Signature of Head of Department)

  
Director  
L.K.G.P.T.U  
Mehali Campus-II

Note: Provide Mapping for all courses of all programs offered by the Department

Name of the Department: M.Plan

Paper UC-MURP104 Planning Techniques and Quantitative Methods

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: To acquire proficiency in statistical techniques and able to conduct empirical studies employing statistical software.	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	Understanding	Yes	Minor Exams, Quiz, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Prashant*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II



Name of the Department: M.Plan

Paper UC-MURP106 Infrastructure Planning -I

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: To provide exposure to infrastructure and its sub-sectors relevant to physical planner in planning and design of urban and regional Infrastructure.	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outlook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices	Understanding	Minor Exams, End Term Exams	

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**Director  
I.K.G.P.T.U  
Mehrauli Campus-II**

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: M. Plan

Paper UC-MURP107 Socio-Economic Planning

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.																		
Problem Solving																		
Planning development																		
Conduct Investigations/ Pre - Planning research																		
Use of Modern tool																		
Socially responsible Planning																		
Environment and Sustainability outlook																		
Ethics																		
Individual and team work																		
Communication																		
Management and finance																		
Life-long Learning																		
Analysis and Planning Skill																		
Research and Innovation																		
gain advanced knowledge in Planning practices																		
																Analyzing		Minor Exams, End Term Exams

*R. Subramanian*  
 Director  
 U.K.G.P.T.U  
 Anandh Campus-II

(Signature of Head of Department)

Note: Provide Mapping for all courses offered by the Department

*[Signature]*

Name of the Department: M.Plan

Paper UC/MURP - 201/19 Planning Studio -II (Urban Planning)

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.																		
Problem Solving																		
Planning development																		
Conduct Investigations/ Pre - Planning research																		
Use of Modern tool																		
Socially responsible Planning																		
Environment and Sustainability outlook																		
Ethics																		
Individual and team work																		
Communication																		
Management and finance																		
Life-long Learning																		
Analysis and Planning Skill																		
Research and Innovation																		
gain advanced knowledge in Planning practices																		
CO1:1. At the end of the course, the students will be able to Analyse urban situations and develop logical decision-making skill.																		
CO 2: 2. To address the complex overlays of conceptualisation, implementation and finance.																		

(Signature of Head of Department)

Note: Provide Mapping for all courses offered by the Department

*Prakash Singh*  
 Director  
 L.K.G.P.T.U.  
 Mohali Campus

*[Signature]*



Name of the Department: M.Plan

Paper UC/MURP - 202/19 Geoinformatics Systems - II	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outlook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	Gain advanced knowledge in Planning practices	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o			
CO1.1. At the end of the course, the students will be able to Apply concepts of geo-informatics and computing skills in the relevant software.		✓		✓	✓	✓	✓	✓	✓	✓		✓				Application	Yes	Minor Exams, End Term Exams
CO 2: Understand their relevance and applicability in urban and regional planning.			✓	✓	✓	✓	✓	✓	✓	✓		✓		✓		Understanding	Yes	Minor Exams, End Term Exams

(Signature of Head of Department)



Note: Provide Mapping for all courses of all programs offered by the Department



Director  
I.K.G.P.T.U  
Mohali Campus-II



Name of the Department: M.Plan

Paper UC/MURP - 203/19 City and Metropolitan Planning	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outLook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices					
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship		Assessment Tools to Measure Attainment of CO	
CO1:1. At the end of the course, the students will able to Understand City – Region Linkages and problems of Metro and Mega Cities and role of urban development policies and problems.	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	Understanding	Yes		Minor Exams, End Term Exams	

(Signature of Head of Department)

*Dr. Ashish*  
**Director**  
**L.K.G.P.T.U**  
**Mohali Campus-II**

Note: Provide Mapping for all courses of all programs offered by the Department

Name of the Department: M.Plan

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1.1. At the end of the course, the students will be able to Prepare schemes and programmes related to infrastructure development as a component for inclusive development.	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outlook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices	Understanding	Yes	Minor Exams, End Term Exams

*Dr. S. Srinivasulu*

**Director**  
**L.K.G.P.T.U**  
**Mohali Campus-II**

*S*  
 (Signature of Head of Department)

Note: Provide Mapping for all courses offered by the Department

*S*

Name of the Department: M. Plan

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
																Application	Yes	Minor Exams, End Term Exams
Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.																		
Problem Solving																		
Planning development																		
Conduct Investigations/ Pre - Planning research																		
Use of Modern tool																		
Socially responsible Planning																		
Environment and Sustainability outlook																		
Ethics																		
Individual and team work																		
Communication																		
Management and finance																		
Life-long Learning																		
Analysis and Planning Skill																		
Research and Innovation																		
gain advanced knowledge in Planning practices																		

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Director  
I.K.G.P.T.U  
Mohali Campus-II

(Signature of Head of Department)

Note: Provide Mapping for all programs offered by the Department

*[Handwritten Signature]*

Name of the Department: M. Plan

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. At the end of the course, the students will be able to Prepare demographic data of the country.	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outlook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices	Application	Yes	Minor Exams, End Term Exams
CO2:2. Understand the requirements of the population																Understanding		Minor Exams, End Term Exams

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Subramanian*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

*JS*

Name of the Department: M.Plan

Paper UC/MURP-212/19 ( EL- I) Urban Development Programs	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outLook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices			
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. At the end of the course, the students will able to Appreciate Indian art and architecture and salient features of its heritage sites.	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Understanding	Yes	Minor Exams, End Term Exams
CO2:2. Understand the institutional framework of the country.			√	√	√	√	√	√		√	√	√	√	√	√	Understanding	Yes	Minor Exams, End Term Exams

(Signature of Head of Department)

*Rabiyah*  
**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**

Note: Provide Mapping for all courses of all programs offered by the Department

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Name of the Department: M.Plan

Paper UC/MURP-213/19 ( EL- I) Planning of New Towns																		
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.		Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outlook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices			
CO1:1. At the end of the course, the students will able to Understand the use and power of emerging new technologies and social networks among communities.	v	v	v	v	v	v	v	v	v	v	v	v	v		v	Understanding	Yes	Minor Exams, End Term Exams
CO2:2. Understand the paradigm shift in the spatial planning outlook and governance edge.			v	v	v	v	v			v	v	v	v	v	v	Understanding		

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Rashmi*

**Director  
L.K.G.P.T.U  
Mohali Campus-II**

Name of the Department: M.Plan

Paper UC/MURP-214/19 ( EL- I) Land Economics and finance	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outlook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1. At the end of the course, the students will able to Examine and explain both theoretical and practical applicability of the different theories of urban growth.	v	v	v	v	v	v	v	v	v	v	v	v				Analysis	Yes	Minor Exams, End Term Exams
CO2:2. Identify and Examine different problems faced on land and the built environment.			v	v	v	v	v	v		v	v	v	v	v	v	Analysis		Minor Exams, End Term Exams
CO3:3. Explain possible approaches of dealing with different problems identified on land and the built environment	v	v	v	v	v	v	v	v	v	v	v		v	v	v	Application		Minor Exams, End Term Exams

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Note: Provide Mapping for all courses of all programs offered by the Department

*P. Ashish*  
 Director  
 L.K.G.P.T.U  
 Mohali Campus-II



Name of the Department: M.Plan

Paper UC/MURP-301/19 Planning Studio -III (Regional Planning)	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outlook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices			
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1:1 At the end of the course, the students will able to Prepare projects of regional scale .	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	Application	Yes	Sheet work, site study, Minor Exams, End Term Exams
CO2: To address the complex overlays of context, linkages, legal frameworks and hierarchy.			v	v	v	v	v	v		v	v	v	v	v	v	Application		
CO3: Explain possible approaches of dealing with different problems identified on land and the built environment.	v	v	v	v	v	v	v	v	v	v	v		v	v	v	Analysis		

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Rudraj*  
**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**

Name of the Department: M.Plan

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
Paper UC/MURP-302/19 Regional Planning  CO1: At the end of the course, the students will be able to Understand of the issues of regional development, regional disparity and the need for balanced regional development.	Ability to gain knowledge in social and economic, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.																	
	Problem Solving																	
	Planning development																	
	Conduct Investigations/ Pre - Planning research																	
	Use of Modern tool																	
	Socially responsible Planning																	
	Environment and Sustainability outlook																	
	Ethics																	
	Individual and team work																	
	Communication																	
	Management and finance																	
	Life-long Learning																	
	Analysis and Planning Skill																	
	Research and Innovation																	
	gain advanced knowledge in Planning practices																	

(Signature of Head of Department)

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Director  
L.K.G.P.T.U  
Mohali Campus-II

Note: Provide Mapping for all courses of all programs offered by the Department

*[Handwritten Initials]*

Name of the Department: M.Plan

Paper UC/MURP-303/19 Research Methodology	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outLook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will able to Apply various research techniques for their research projects and thesis.	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	Application	Yes	Minor Exams, End Term Exams
CO2: Understand and explore various areas of research in urban planning.		v	v	v	v	v	v	v	v		v	v	v	v	v	Understanding		Minor Exams, End Term Exams
CO3: Formulate a research a problem.	v	v	v	v	v	v	v	v	v		v	v	v	v	v	Application		Minor Exams, End Term Exams

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*P. Pradyumn*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

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Name of the Department: M.Plan

Paper UC/MURP-304 /19 Review of Summer professional training / internship																		
	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outlook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices			
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will able to Apply various research techniques for their research projects and thesis.	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	Application	Yes	End Term Viva Voce Exams
CO2: Understand and explore various areas of research in urban planning.			v	v	v	v	v	v		v	v	v	v	v	v	Understanding		
CO1: Formulate a research a problem.	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	Application		

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Ashish*  
 Director  
 L.K.G.P.T.U  
 Mohali Campus-II

Name of the Department: M.Plan

Paper UC/MURP-PE-305(A)/19 (Elective-II) Special Area Planning																		
	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outLook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices			
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will able to Develop development plans of special areas ;Understand the use and power of emerging new technologies and social networks among communities.	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v			
CO2: Understand the governance and management aspects of these areas.			v	v	v	v	v			v	v	v	v	v	v	Application	Yes	Minor Exams,End Term Exams
			v	v	v	v	v			v	v	v	v	v	v	Understanding		

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. Aradhya*  
 Director  
 I.K.G.P.T.U  
 Mohali Campus-II

Name of the Department: M.Plan

Paper UC/MURP-PE-305(B)/19 ( Elective-II) Disaster Management	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outlook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices	Learning Level	Focus on Employability / Entrepreneurship	Tools to Measure Attainment of
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Tools to Measure Attainment of
CO1: At the end of the course, the students will able to Understand the disasters and disaster management.	√	√	√	√	√	√	√	√	√	√	√	√				Understanding	Yes	Minor Exams, End Term Exams
CO2: Understand planning of disaster prone areas and know various mitigation measures and preparedness			√	√	√	√	√			√	√	√	√	√	√	Understanding		

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*Rashmi*

Director  
I.K.G.P.T.U  
Mohali Campus-II

Name of the Department: M.Plan

Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
																Understanding	Yes	Minor Exams, End Term Exams
CO1: At the end of the course, the students will be able to Describe a project life cycle, and can skillfully map each stage in the cycle.	Ability to gain knowledge in social and economic, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outlook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices			
CO2: Identify the resources needed for each stage, describe the time needed to successfully complete a project.																Analysis		Minor Exams, End Term Exams
																		Minor Exams, End Term Exams

*P. S. Singh*  
 Head of Department  
 J.K.G.P.U.  
 Mohali Campus-II

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*TS*

Name of the Department: M.Plan

Paper UC/MURP-PE-305(D) /19(Elective-II) Rural Planning and Development	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outlook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices			
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
CO1: At the end of the course, the students will able to Understand the policies and sectoral policies of rural planning.	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	Understanding	Yes	Minor Exams, End Term Exams
CO2: Will learn to raise the quality of life of the people in rural areas.	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	Analysizing		

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*P. ...*  
 Director  
 L.K.G.P.U  
 Mohali Campus-II



Name of the Department: M.Plan

Paper UC/MURP-OE-306/19 (Open Elective-I) MOOC/SWAYAM/NPTEL/ Open learning course relevant to M.Plan course	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PO-m	PO-n	PO-o	Learning Level	Focus on Employability / Entrepreneurship	Assessment Tools to Measure Attainment of CO
	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outlook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	Gain advanced knowledge in Planning practices	Understanding		Minor Exams, End Term Exams
CO1: At the end of the course, the students will be able to Understand the need of ICT in Learning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding		
CO2: Explore wide perspective of Learning beyond the limits of the classroom.			✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	Understanding		

(Signature of Head of Department)

*R. Ananth*  
**Director**  
**I.K.G.P.T.U**  
**Mohali Campus-II**

Note: Provide Mapping for all courses of all programs offered by the Department

Name of the Department: M.Plan

Paper UC/MURP - 401/19 Planning Thesis	Ability to gain knowledge in social and economical, legal and political, environmental and physical, governance and management aspects of planning and create livable human settlements in rural, urban and regional areas.	Problem Solving	Planning development	Conduct Investigations/ Pre - Planning research	Use of Modern tool	Socially responsible Planning	Environment and Sustainability outlook	Ethics	Individual and team work	Communication	Management and finance	Life-long Learning	Analysis and Planning Skill	Research and Innovation	gain advanced knowledge in Planning practices			
Course Outcome	PO-a	PO-b	PO-c	PO-d	PO-e	PO-f	PO-g	PO-h	PO-i	PO-j	PO-k	PO-l	PSO-m	PSO-n	PSO-o	Learning Level	Focus on Employability / Entrepreneurship	Tools to Measure Attainment of CO
CO1: At the end of the course, the students will be able to have a basic understanding of the area chosen for study (by carrying out a detailed literature review).	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Understanding	Yes	University Viva Voce
CO2: To undertake detailed exploration of the topic (by way of surveys and studies).	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	Analyzing	Yes	University Viva Voce
CO3: To identify issues and concerns those emerge out of the study and suggest recommendations.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			Application	Yes	University Viva Voce

(Signature of Head of Department)

Note: Provide Mapping for all courses of all programs offered by the Department

*R. S. Jyoti*  
 Director  
 L.K.G.P.I.  
 Mohali Campus