



## Integral University, Lucknow

<b>Effective from Session: 2021 - 2022</b>							
<b>Course Code</b>	AR401	<b>Title of the Course</b>	Architectural Design-VII	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	IV	<b>Semester</b>	VII	3	-	6	12
<b>Pre-Requisite</b>	AR310	<b>Co-requisite</b>	Nil				
<b>Course Objectives</b>	<ol style="list-style-type: none"> <li>1. To expose the students to the challenges of designing functionally complicated buildings, having a complex array of activities and services;</li> <li>2. To familiarize the students with the task of coordinating the integration of structural design and specialized building services in the framework of architectural design.</li> <li>3. To let the students understand advanced construction technology and newer building materials..</li> </ol>						

Course Outcomes	
<b>CO1</b>	Know about the challenges of designing functionally complicated buildings, having a complex array of activities and services
<b>CO2</b>	Familiarize with the coordinating integration of structural design and specialized building services in the framework of architectural design
<b>CO3</b>	Know and understand advanced construction technology and newer building materials.
<b>CO4</b>	Apply up-to-date information for planning and operation of urban transport.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>Exercise - I</b>	<b>Transit-Oriented Buildings</b> Airports, Railway/Metro stations, ISBT, etc.	48	1, 2, 3 & 4
2	<b>Exercise - II</b>	<b>To Focus on Following Design Parameters</b> High Rise Service-oriented Technologically Advanced structural systems Automation	48	1, 2 & 3
3	<b>Time Problem</b>	Design of any small scale shall be carried out in design week from introduction to final Submission, Design week problems should be introduced on Saturday/ two days before the commencement of the design week for enabling the students to collect literature and relevant data for the exercise. The problem introduced in design week to be judged by external experts.	48	1,2 & 3

**Reference Books:**

*Architecture Form, Space and Order* by D.K.Ching, Francis

*Design Fundamentals* by V.S Parmar

*Form, Line to Design* by Scott Van Dyke

*Design Fundamentals* by Scott R

*Architects Hand Book and Planning* by E&OE

**e-Learning Source:**

Urban Transit System Planning: <https://archive.nptel.ac.in/courses/105/105/105105208/>

NBC 2016: <https://archive.org/details/nationalbuilding01/in.gov.nbc.2016.vol1.digital>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO- PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
	<b>CO1</b>	3	3	3	2	-	1	3	2					3	3	3	2	
<b>CO2</b>	3	3	2	3	2	-	1	3					3	2	3	1		
<b>CO3</b>	-	2	3	1	3	1	3	3					3	3	2	3		
<b>CO4</b>	3	3	3	2	2	3	2	3					3	3	3	3		

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

<p><b>Ar. Shweta Verma</b> Name &amp; Sign of Program Coordinator</p>	<p><b>Sign &amp; Seal of HoD</b></p>
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## Integral University, Lucknow

Effective from Session: 2021 - 2022							
Course Code	AR402	Title of the Course	Building Construction & Materials - VII	L	T	P	C
Year	IV	Semester	VII	1	2	2	5
Pre-Requisite	AR311	Co-requisite	Nil				
Course Objectives	<ol style="list-style-type: none"> <li>To develop understanding about construction principles.</li> <li>Construction technology and appropriate materials for structural systems, roofing, enveloping and interior finishes shall be considered under this subject from simple examples to complex.</li> <li>To understand design limitations due to authority guidelines and making drawings/ details necessary for final execution of a project.</li> <li>To introduce and familiarize the students with the advanced construction techniques with special reference to energy saving in terms of module base design practice as well as green building concept.</li> <li>The subjects should also focus on developing design abilities by applying basic principles of construction and choosing appropriate materials and techniques and mechanical technology as per market trends.</li> </ol>						



Course Outcomes	
CO1	To know about the construction equipments like Electric hand tools, Earth Moving and Excavation and Transportation machines.
CO2	Understand Defects and Remedies in Buildings.
CO3	Know Modular Coordination, Standardization in building design and their components
CO4	Know construction techniques about Domes, Shells and Folded Plates.
CO5	Understand Communication Systems & mechanical means of transportation both vertical and horizontal transportation in a building.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>MODULAR COORDINATION</b>	Aims, basis, planning, dimensioning, Assembly of components, Tolerances, Modules, Referencing system, Grids, Positioning of functional elements: slabs, walls, staircases, Tiles, etc	16	1,2&3
2	<b>MODERN CONSTRUCTION EQUIPMENTS</b>	Electric hand tools, Cranes, Excavators, Trenchers, Bulldozers, Fork Lift, Dumpers, Laser line Level, Scraper, Drifter, Jack Hammer, Breakers, and Conveyors etc.	14	1,2&5
3	<b>ADVANCED STRUCTURAL SYSTEM</b>	Advanced structural system and construction techniques with special reference to high rise buildings	18	3,4&5
4	<b>ALTERNATE CONSTRUCTION MATERIAL AND TECHNIQUES</b>	Alternative and advanced Building Materials: Ferro cement, Fly ash bricks, Ashcrete, Titanium Dioxide, Foamed Concrete, Graphene etc. High Performance Concrete, Self-compacting Concrete (SCC), High Volume Fly Ash Concrete (HVFA), Condensed Silica Fume (CSF), Self-curing, Shrinkage-free concrete, Translucent Concrete, Sandwich Panels etc.	16	3&4
5	<b>PNEUMATIC STRUCTURES</b>	Domes Shells, Folded Plates and other surface active structures: Folded Plates and barrel shells, hyperbolic parabolooids, and domes in R. C. C., Geodesic domes and space frames etc.	16	4

Reference Books:	
Building Construction of Buildings, Vol. I, II and IV by R. Barry	
Building Materials by S. K. Duggal	
Materials of Construction by D. N. Gosh	
Building Construction by S. C. Rangwala	
Construction Technology Vol. III by R. Chudley	
e-Learning Source:	
<a href="https://www.studocu.com/in/document/galgotias-university/building-construction/modular-coordination/17283869">https://www.studocu.com/in/document/galgotias-university/building-construction/modular-coordination/17283869</a>	
<a href="https://www.slideshare.net/MOHANAHARIHARANR/modern-construction-equipments">https://www.slideshare.net/MOHANAHARIHARANR/modern-construction-equipments</a>	
<a href="https://www.viatechnik.com/modern-construction-machines-theyre-used/">https://www.viatechnik.com/modern-construction-machines-theyre-used/</a>	
<a href="https://www.britannica.com/technology/pneumatic-structure">https://www.britannica.com/technology/pneumatic-structure</a>	

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	-	1	3	3	-	2	2	2					2	3	3	3		
CO2	1	2	3	2	1	3	3	2					3	3	3	2		
CO3	3	2	3	3	-	2	2	3					3	2	2	2		
CO4	3	3	3	2	-	2	3	3					2	2	2	3		
CO5	2	3	3	2	-	2	1	2					2	2	2	3		

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

 <b>Ar. Shweta Verma</b> Name & Sign of Program Coordinator	 <b>Sign &amp; Seal of HoD</b>
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## Integral University, Lucknow

<b>Effective from Session: 2021 - 2022</b>							
<b>Course Code</b>	AR403	<b>Title of the Course</b>	LANDSCAPE DESIGN AND CONSTRUCTION	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	IV	<b>Semester</b>	VII	-	4	-	2
<b>Pre-Requisite</b>	Nil	<b>Co-requisite</b>	AR401				
<b>Course Objectives</b>	<ol style="list-style-type: none"> <li>1. To recognize landforms, plantation water bodies and structures as major landscape elements.</li> <li>2. To analyze the site elements as potentials and constraints, synthesize them to evolve simple landscape sche</li> </ol>						

Course Outcomes	
<b>CO1</b>	Students knows and familiarized with the background of Landscape design in the field
<b>CO2</b>	Students knows and familiarized with the elements of landscape in planning and design
<b>CO3</b>	To learn about the variety of trees and plants. The benefits we get from planning them in different conditions.
<b>CO4</b>	Understand and analyses the working of landscape graphics in construction
<b>CO5</b>	Understand & knows about the appropriate materials and techniques and technology used in the landscaping construction as per market trends.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>Introduction and History</b>	Meaning, definitions, scope, objective and its relevance to Architecture and Site Planning. Landscape style: formal and informal, Types of Gardens: Egyptian, Roman, Chinese, Hindu-Buddhist, Mughal, Japanese, etc. Suggested exercises: small garden design, kitchen garden design, etc.	8	1
2	<b>Major Landscape Elements, Site Analysis and Planting</b>	Visual, physical, environmental & synthesis in small landscape design incorporating landscape elements. Landforms, rocks, plantation, water bodies and fountains, constructs with their use in landscaping. Site planning with special reference to Green Architecture. Suggested exercises: Design of roundabout, fountain, cascades, etc.	12	2,3
3	<b>Plant Identification and Suitability</b>	Botanical and common names, form, texture, salient properties and their appropriate use. Effects of trees and plants on microclimate. Suggested exercises: Charts to classification.	12	2,3
4	<b>Landscape Graphics</b>	Conventional symbols in presentation drawings, e.g.: trees, shrubs, ground cover, hedges, edges etc. Conceptual drawings, preliminary landscape plans, planting plans and drawings. Suggested exercises: Large courtyards designs, outdoor spaces, etc.	16	4,5
5	<b>Landscape Design and Construction Techniques</b>	Site preparation, Grading, Site Drainage and Erosion Protection, Landscape-- Retaining wall and stairs, Landscape paving, Fences and Freestanding walls, Grass laying, Wooden decks, Outdoor furniture and lighting. Suggested exercises: Incorporation of landscape design in ongoing design problem.	16	5

Reference Books:	
Simonds, J.O., <i>Landscape Architecture</i>	
Bose, T.K., & Chowdhary, B.S., <i>Tropical Garden Plants</i>	
Randhawa, M.S., <i>Flowering Trees</i>	
Little Wood, Michael, <i>Landscape Detailing (Surfaces)</i>	
Santapan, H., <i>Common Trees</i>	
Appleton., <i>The Experience of Landscape.</i>	
Geoffrey, and Jellico, S, <i>The Landscape of Man.</i>	
Holl, G. P., <i>Questions of Perception Phenomenon logy of Architecture.</i>	
Laurie., <i>An Introduction to Landscape Architecture</i>	
Lynch, K., <i>Site Planning. Cambridge</i>	
Reid, G., <i>Landscape Graphics.</i>	
Simonds, J. O., <i>Landscape Architecture: A Manual of Land Planning and Design</i>	
e-Learning Source:	
<a href="http://www.gardemvisit.com/landscape_architecture/landscape_debate/definition_eid">http://www.gardemvisit.com/landscape_architecture/landscape_debate/definition_eid</a>	
<a href="http://agritech.tnau.ac.in/horticulture/horti_Landscaping_types%20of%20garden.html">http://agritech.tnau.ac.in/horticulture/horti_Landscaping_types%20of%20garden.html</a>	
<a href="http://www.localhistories.org/gardening.html">http://www.localhistories.org/gardening.html</a>	

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
	CO1	3	2		1	3		3	1						3	1	1	

C02	2	3	3			2		3					3			3		
C03	1		3	1	2		1	1						3	3			
C04		3	3	3	1		1	1					2				3	
C05	3	2		3	3	2	3	1						1	3		3	

**Ar. Shweta Verma**  
Name & Sign of Program Coordinator



**Sign & Seal of HoD**



## Integral University, Lucknow

<b>Effective from Session: 2021 - 2022</b>							
<b>Course Code</b>	AR404	<b>Title of the Course</b>	Theory of Design	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	IV	<b>Semester</b>	VII	1	2	-	2
<b>Pre-Requisite</b>	Nil	<b>Co-requisite</b>	AR401				
<b>Course Objectives</b>	1. The course will focus on creating a deep understanding about Architecture and Design from a theoretical perspective. 2. The course will help students to develop a strong design vocabulary, how and by what means to communicate their design and to understand the philosophy and the undercurrents of the design process.						

Course Outcomes	
<b>CO1</b>	To understand Architecture and Design from a theoretical perspective.
<b>CO2</b>	To develop a strong design vocabulary, how and by what means to communicate their design
<b>CO3</b>	To understand the philosophy and the undercurrents of the design process.
<b>CO4</b>	To understand various ideologies and context of designs thereby developing their own philosophy and applying the same knowledge in their own design skills.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Introduction	Introduction to theory, design, philosophy, aesthetics - chronological overview from Stone Age to Postmodernism. Discussions/Presentations on Works/Philosophies of Plato, Aristotle, Karl Marx, Vitruvius Pollio, Louis Sullivan, etc.	10	1
2	Modernism	The principles and philosophy of modernism- in art, design and architecture, worldview, theories & perceptions of time and space, mode of reasoning. Discussions/Presentations on Works/Philosophies of Frank Lloyd Wright, Walter Gropius, Le Corbusier, Pablo Picasso, Immanuel Kant, etc.	12	2
3	Structuralism & Postmodernism	The principles and philosophy of Postmodernism- in art, design and architecture, worldview, theories & perceptions of time and space, mode of reasoning. Discussions/Presentations on Works/Philosophies of Le Corbusier, Charles Moore, Louis Kahn, Renzo Piano, Aldo Rossi, Herbert Spencer etc.	8	3
4	Post-Structuralism/Deconstruction	The principles and philosophy of Post-Structuralism, of art, design and architecture, worldview & mode of reasoning. Discussions/Presentations on Works/Philosophies of Jacques Derrida, Peter Eisenman, Bernard Tschumi, Juhani Pallasmaa, Frank O Gehry, Daniel Libeskind, Rem Koolhaas, Zaha Hadid, etc. Biomimicry/biomimetics: The principles, philosophy and Examples. Discussions/Presentations on Works/Philosophies of Antoni Gaudi, Norman Foster, Michael Pawlyn.	12	4
5	Contemporary Indian architects	The principles and philosophy of Indian architects in art, design and architecture, worldview, theories & perceptions of time and space, mode of reasoning. Discussions/Presentations on Works/Philosophies of Laurie Baker, A.P. Kanvinde, B.V.Doshi, J.A.Stein, Charles Correa, Raj Rewal, Hafeez Contractor, Gautam Bhatia, Uttam Jain, Romi Khosla, etc.	6	4

**Reference Books:**



- A History of Architecture by Sir Banister Fletcher,
- Modern Architecture since 1900 by W. J. R. Curtis
- Modern Architecture - A Critical History by K. Frampton
- Architecture in the Twentieth Century by P. Gossel & G. Leuthauser
- The Language of Post-Modern Architecture by C. Jencks

**e-Learning Source:**

- <https://study.com/academy/lesson/modernism-in-architecture-definition-history.html>
- <https://www.archdaily.com/931129/12-important-modernist-styles-explained>
- <https://www.invaluable.com/blog/postmodern-architecture/>
- [https://www.academia.edu/8859069/A Search for Post Modernism in Indian Architecture](https://www.academia.edu/8859069/A_Search_for_Post_Modernism_in_Indian_Architecture)

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	2	2	2	1	-	3	2					3	2	3	1		
CO2	2	3	2	1	2	-	3	2					3	1	2	3		
CO3	3	3	2	2	1	-	2	3					3	3	1	3		
CO4	3	3	2	3	2	-	1	3					3	2	3	2		

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## Integral University, Lucknow

Effective from Session: 2021 - 2022							
Course Code	AR405	Title of the Course	Architectural Structures-VI	L	T	P	C
Year	IV	Semester	VII	2	-	-	2
Pre-Requisite	AR313	Co-requisite	AR402				
Course Objectives	1. To understand the basic principles of structural mechanics, so that it can help in building a strong basis to understand study of structural design. 2. Developing in students, material skills to analyze and understand fundamentals and working of various parts of different structural systems. 3. Analysis and design of indeterminate structures and their use. 4. Design of structural elements in reinforced cement concrete and steel structures.						

Course Outcomes	
CO1	Purpose and Architectural Aspects of Shear Walls, Its behavior and structural details.
CO2	Understanding Folded plate as a form-active system, Cross-sectional dimensions of folded plate.
CO3	General understanding of shell behavior, Historical perspective Modern day use.
CO4	Different structural systems for high rise buildings and their advantages and disadvantages.
CO5	Understanding general structural behavior of tension systems.



Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>SHEAR WALL CONSTRUCTION</b>	Introduction, Purpose and Architectural Aspects of Shear Walls, Its behavior and Comparison with conventional Load bearing wall and frame structure, Classification and types, Construction process	6	1
2	<b>FOLDED PLATE, PLATES AND GRIDS</b>	Folded Plate: General understanding of folded plate, Folded plate as a form-active system, Cross-sectional dimensions of folded plate, Ferro cement as a material for folded plate construction, examples modern day use. Plates and Grids: General understanding of structural behavior of plates and grids, one and two way action, grid floor, rectangular and skew grids, T-beam action, filler slabs, Examples of modern day use.	6	2
3	<b>SHELLS AND SPACE FRAME</b>	Shells: General understanding of shell behavior, Historical perspective Modern day use, thick shell thin shell, membrane stresses in thin shell, geometry of shells, of and Meridian stress. Space Frame: General understanding of structure of space frame, space structures against plane structures, examples of modern day use.	6	3
4	<b>HIGH RISE STRUCTURES</b>	Principles of high rise structures, different structural systems for high rise buildings, advantages and disadvantages of each, considerations in multistory frame for wind, examples of modern day use.	6	4
5	<b>TENSILE STRUCTURES</b>	Principles of tensile structures, understanding general structural behavior of tension systems, sag and cross sectional area of cables, cable suspended and cabled stayed structure, examples of modern day use.	8	5

Reference Books:
Structures In Architecture: The Building Of Buildings, Prentice Hall Inc., 1963 by Heller Robert and Salvadori Mario
Precast Concrete Structures (2nd Edition) by Kim S. Elliott
Prefabricated Structure by ARS Pub. Chennai V. Soundara Rajan
Earthquake resistant design of structures by S. K. Duggal
Safety, Health and Environment Handbook by K.T. Narayanan
e-Learning Source:
<a href="http://www.cement.org/cement-concrete-basics/products/prestressed-concrete">http://www.cement.org/cement-concrete-basics/products/prestressed-concrete</a>
Structure form & Synergy: <a href="https://archive.nptel.ac.in/courses/124/107/124107012/">https://archive.nptel.ac.in/courses/124/107/124107012/</a>
Dynamics of Structure: <a href="https://archive.nptel.ac.in/courses/105/101/105101209/">https://archive.nptel.ac.in/courses/105/101/105101209/</a>



Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO- PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	1	2	3	2	3	3	2	1					3	3	2	2		
CO2	1	3	2	2	-	3	2	1					2	3	2	1		
CO3	1	3	3	2	3	3	2	1					3	3	3	1		
CO4	1	2	3	2	2	3	2	1					3	2	3	1		
CO5	1	3	3	2	-	2	3	1					3	2	3	2		

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## Integral University, Lucknow

<b>Effective from Session: 2021-2022</b>							
<b>Course Code</b>	AR 406	<b>Title of the Course</b>	<b>TOWN PLANNING</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	IV	<b>Semester</b>	VII	1	2	-	2
<b>Pre-Requisite</b>	AR303	<b>Co-requisite</b>	Nil				
<b>Course Objectives</b>	1. To introduce the subject of Town planning to students of architecture so that the students can relate to the architectural projects in context of planning. 2. To develop basic skills in planning surveys, analysis, generating alternative planning strategies and evaluation of options and preparation of plans.						



<b>Course Outcomes</b>	
<b>CO1</b>	To introduce the subject of Town planning to students of architecture so that the students can relate to the architectural projects in the context of planning.
<b>CO2</b>	To develop basic skills in planning surveys, analysis, and generating alternative planning strategies
<b>CO3</b>	evaluation of options and preparation of plans.
<b>CO4</b>	Understand planning principles and their evolution.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Introduction	Introduction to the subject of Town Planning, need of study of Town Planning for an architect. Planning Theories – Theories by Le Corbusier, Sir Patrick Geddes, Sir Ebenezer Howard, C.A. Doxiadis, Clarence Perry and Lewis Mumford	08	1, 2 & 4
2	Development of Towns/ Cities	Development of new towns and cities. Study of new towns such as New Delhi, Chandigarh, Gandhinagar, Noida, and Navi Mumbai Study existing settlements with respect to current theories in planning	12	2, 3 & 4
3	Planning Principles and Techniques	Planning Surveys, Planning Standards, Preparation of Master plans, Zoning and Development controls	10	1, 2 & 4
4	Traffic and Transportation Planning	Introduction to traffic and transportation planning Roads and traffic studies, Awareness of concepts related to various traffic problems in India. Understanding of PCU, Traffic volume, Road capacities, Road types; their sections and intersections, parking areas, pedestrian & slow-moving traffic planning, Traffic calming as per IRC guidelines. Modern Transportation systems: New concepts in mass and rapid transportation systems e.g. BRT, LRT and Metro rail.	10	1, 2 & 3
5	Introduction of Governing Bodies	Planning Process & Standards Understanding of the planning process. Relevance of standards in planning as per UDPFI guidelines prepared by TCPO. Introduction to professional bodies like ITPI, CTCP, DDA, LDA.	08	1

<b>Reference Books:</b>	
Urban Pattern by B. Gallion.	
Fundamentals of Town Planning by G. K. Hiraskar	
City in History by Mumford, Lewis.	
History in the town by Korn, Auther.	
Town Planning by S. C. Rangwala	
<b>e-Learning Source:</b>	
<a href="http://www.collectionscanada.gc.ca/obj/s4/f2/dsk3/ftp04/MQ61319.pdf">http://www.collectionscanada.gc.ca/obj/s4/f2/dsk3/ftp04/MQ61319.pdf</a>	
<a href="http://archive.org/stream/principlesofcity00lohmrich/principlesofcity00lohmrich_djvt">http://archive.org/stream/principlesofcity00lohmrich/principlesofcity00lohmrich_djvt</a>	
<a href="http://www.srmuniv.ac.in/downloads/townplaning.pdf">http://www.srmuniv.ac.in/downloads/townplaning.pdf</a>	
<a href="http://urbanindia.nic.in/legislations/sub_legis/ulcra_1976.pdf">http://urbanindia.nic.in/legislations/sub_legis/ulcra_1976.pdf</a>	
<a href="http://megrevenue.gov.in/acts/land-aquisition-act-1894.pdf">http://megrevenue.gov.in/acts/land-aquisition-act-1894.pdf</a>	
<a href="http://indiarentalagreement.com/what-is-rent-control-act/">http://indiarentalagreement.com/what-is-rent-control-act/</a>	

PO- PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO6	PSO7
CO1	1	1	1	3	3	1	3	2					3	2	3	3		
CO2	3	3	1	1	3	1	1	3					3	3	2	1		
CO3	2	2	3	1	2	2	1	1					3	3	3	2		
CO4	2	2	1	3	2	3	3	3					3	2	3	1		

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

 <b>Ar. Shweta Verma</b> Name & Sign of Program Coordinator	 <b>Sign &amp; Seal of HoD</b>
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## Integral University, Lucknow

<b>Effective from Session: 2021 - 2022</b>							
<b>Course Code</b>	AR407	<b>Title of the Course</b>	Elective I - Architectural Photography	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	IV	<b>Semester</b>	VII	2	-	-	2
<b>Pre-Requisite</b>	AR112	<b>Co-requisite</b>	Nil				
<b>Course Objectives</b>	To enable students a choice of subjects at the undergraduate level itself so that these could be further developed in the profession or studies at Post Graduate levels if the student so desires.						

Course Outcomes	
<b>CO1</b>	Learning about the history and basics of photography.
<b>CO2</b>	Learning about the use of camera.
<b>CO3</b>	Understanding of camera settings.
<b>CO4</b>	Understanding the use of different rules of photography.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Introduction	History of photography, Types of photography, elements like line, shape, colour, texture, etc.	6	1
2	Introduction To Camera	Parts of a camera, automatic and manual settings, types of cameras	6	2,3
3	Settings Of Camera	ISO, Aperture, shutter speed, Concept of lighting	10	1,2,3,4
4	Rules Of Photography	Compositions, Rule of third, leading lines, rule of odds, triangles, setting frames, light exposure, depth of field, etc.	10	1,2,3,4
5				

<b>Reference Books:</b>
<b>Understanding Exposure:</b> How to Shoot Great Photographs with a Film or Digital Camera by Bryan F. Peterson
The Photographer's Eye by Michael Freeman
<b>e-Learning Source:</b>
<a href="https://www.udemy.com/course/photography-masterclass-complete-guide-to-photography/">https://www.udemy.com/course/photography-masterclass-complete-guide-to-photography/</a>
<a href="https://www.udemy.com/course/mobile-photography-masterclass-for-instagram/">https://www.udemy.com/course/mobile-photography-masterclass-for-instagram/</a>
<a href="https://www.udemy.com/course/mobile-photography-for-beginners-master-your-smartphone/">https://www.udemy.com/course/mobile-photography-for-beginners-master-your-smartphone/</a>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO-CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
<b>CO1</b>	1	3	3	2	3	2	3	1					2	3	2	1		
<b>CO2</b>	2	2	3	3	3	2	1	3					1	2	1	1		
<b>CO3</b>	3	3	3	1	2	2	1	1					2	3	2	2		
<b>CO4</b>	2	3	3	1	1	2	1	1					1	3	2	1		

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

<p><b>Ar. Shweta Verma</b> Name &amp; Sign of Program Coordinator</p>	<p><b>Sign &amp; Seal of HoD</b></p>
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# Integral University, Lucknow

Effective from Session: 2021 - 2022

<b>Course Code</b>	AR408	<b>Title of the Course</b>	Elective-I (Art in Architecture)	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	IV	<b>Semester</b>	VII	2	-	-	2
<b>Pre-Requisite</b>	Nil	<b>Co-requisite</b>	Nil				
<b>Course Objectives</b>	To enable students a choice of subjects at the undergraduate level itself so that these could be further developed in the profession or studies at Post Graduate levels if the student so desires.						

### Course Outcomes

<b>CO1</b>	Understanding the art around the world.
<b>CO2</b>	Study and understanding the relation of art and architecture.
<b>CO3</b>	Analyze and implementation of previous works of artist in today's world.
<b>CO4</b>	Learn the process of documenting the work

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Introduction	Role of art in history of World Architecture	4	1
2		Symbiotic relationship of art and architecture	4	1,2
3		Application of different art forms in architecture	6	2,3
4		Works of different artists and architects that reflects the inter relationship.	8	1,2,3
5	Documentation	Documentation of the different types of Artwork by different artist of the work.	10	1,2,3,4

### Reference Books:

- Art and Architecture: A Place between by Jane Rendell
- The Art-Architecture Complex by Hal Foster
- The Art of Architecture by Stanislaus Von Moos by Le Corbusier

### e-Learning Source:

- [https://www.researchgate.net/publication/346028731\\_Art\\_and\\_Architecture](https://www.researchgate.net/publication/346028731_Art_and_Architecture)
- <https://www.eden-gallery.com/news/is-architecture-art>
- <https://owlcation.com/humanities/Deriving-Meaning-from-Art-and-Architecture>
- <https://www.janerendell.co.uk/wp-content/uploads/2009/03/Art-and-Architecture-prepublication.pdf>

### Course Articulation Matrix: (Mapping of COs with POs and PSOs)

PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
<b>CO1</b>	1	3	3	2	-	2	1						1	2	3	1		
<b>CO2</b>	2	2	3	2	1	1	1						2	2	3	1		
<b>CO3</b>	3	3	3	1	1	2	1						2	3	3	2		
<b>CO4</b>	2	3	3	1	1	1	3						1	3	2	1		

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Ar. Shweta Verma  
Name & Sign of Program Coordinator

Sign & Seal of HoD



## Integral University, Lucknow

<b>Effective from Session: 2021 - 2022</b>							
<b>Course Code</b>	AR409	<b>Title of the Course</b>	Elective - I (Applied Ergonomics)	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	IV	<b>Semester</b>	VII	2	-	-	2
<b>Pre-Requisite</b>	Nil	<b>Co-requisite</b>	Nil				
<b>Course Objectives</b>	To enable students a choice of subjects at the undergraduate level itself so that these could be further developed in the profession or studies at Post Graduate levels if the student so desires.						

Course Outcomes	
CO1	To understand the basics and importance of ergonomics
CO2	To understand the domains of ergonomics and gross human anatomy.
CO3	To apply and analyse the integration of ergonomics in design and architecture
CO4	To analyse the needs of special users using principles of ergonomics
CO5	To develop and design architectural solutions according to ergonomic principles

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>Introduction</b>	Introduction to Human Function, Human centred design	6	1
2	<b>Ergonomics and Design</b>	Human being in the manmade world and importance of ergonomics, Gross human anatomy	8	2,3
3	<b>Ergonomics Design</b>	Ergonomics and Design, Physical Ergonomics, Tools and techniques for Ergonomics., Cognitive Ergonomics	8	3,4
4	<b>Anthropometrics</b>	Introduction to Anthropometrics: static and dynamic; Disability, Ageing and	6	4
5	<b>Inclusive Design</b>	Inclusive Design- Built environment for the physically handicapped	4	3,4,5

<b>Reference Books:</b>	
R. S. Bridger, "Introduction to Ergonomics", CRC Press.	
Work Systems and the Methods, Measurement, and Management of Work, by Mikell P. Groover, ISBN 0-13-140650-7. ©2007 Pearson Education, Inc., Upper Saddle River, NJ. All rights reserved.	
An Introduction to Human Factors Engineering by Christopher D. Wickens	
The practice and management of Industrial Ergonomics by David C. A.	
Engineering Psychology and Cognitive Ergonomics (Ed. Don harris)	
<b>e-Learning Source:</b>	
Applied Ergonomics - Course (nptel.ac.in)	
Applied Ergonomics   Journal   ScienceDirect.com by Elsevier	

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1					2		3	1					1	3	2	2		
CO2		2	3	1			2						1	3	3	2		
CO3	3	2			1			2					1	2	2	3		
CO4	2	2	1	2	3	1		3					1	1	3	2		
CO5	3	2		2	1			3					2	1	3	2		

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

<p><b>Ar. Shweta Verma</b> Name &amp; Sign of Program Coordinator</p>	<p><b>Sign &amp; Seal of HoD</b></p>
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# Integral University, Lucknow

Effective from Session: 2021 - 2022

Course Code	AR410	Title of the Course	Elective - I (Graphics and Product Design)	L	T	P	C
Year	IV	Semester	VII	2	-	-	2
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	To enable students a choice of subjects at the undergraduate level itself so that these could be further developed in the profession or studies at Post Graduate levels if the student so desires.						

### Course Outcomes

CO1	To understand the basics and importance of Graphic Design
CO2	To understand the domains Product design.
CO3	To apply and analyze the integration of graphic design in design and architecture
CO4	To analyze the needs of special users using principles of product design
CO5	To develop and design architectural solutions according to product design

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Introduction	Introduction to Graphic and Product Design- Elements, principles and their applications	8	1, 2 & 4
2	Principles of product design	Concept of Form and Space, Considerations of Color, Pattern, Texture and Proportion in products and product environments.	8	2 & 5
3	Manufacturing process	Relating Form to Materials and Processes of Manufacture;	4	4 & 5
4	Software and presentation	Use of Computers for Form generation	6	1 & 4
5	Case studies	Case studies	6	2

### Reference Books:

The Laws of Simplicity by John Maeda

The Design of Everyday Things by Don Norman.

Product Design by Alex Milton

### e-Learning Source:



[https://s3.amazonaws.com/designco-web-assets/uploads/2019/05/InVision\\_PrinciplesOfProductDesign.pdf](https://s3.amazonaws.com/designco-web-assets/uploads/2019/05/InVision_PrinciplesOfProductDesign.pdf)

[https://www.researchgate.net/publication/320767533\\_PRODUCT\\_DESIGN\\_PRINCIPLES](https://www.researchgate.net/publication/320767533_PRODUCT_DESIGN_PRINCIPLES)

### Course Articulation Matrix: (Mapping of COs with POs and PSOs)

PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO6	PSO7
CO1	1		2		2			1					3	2	2	2		
CO2		3	3	1			2						2	3	1	2		
CO3	3	2	1		1		2	2					3	3	2	1		
CO4	2	1	1	2	2	1		3					2	1	2	2		
CO5	2	2		2	1			3					2	2	3	2		

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

 <b>Ar. Shweta Verma</b> Name & Sign of Program Coordinator	 <b>Sign &amp; Seal of HoD</b>
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### Integral University, Lucknow

<b>Effective from Session: 2021-2022</b>							
<b>Course Code</b>	AR411	<b>Title of the Course</b>	Elective-II (Barrier Free Environment)	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	IV	<b>Semester</b>	VII	2	-	-	2
<b>Pre-Requisite</b>	Nil	<b>Co-requisite</b>	Nil				
<b>Course Objectives</b>	To enable students a choice of subjects at the undergraduate level itself so that these could be further developed in the profession or studies at Post Graduate levels if the student so desires.						


<b>Course Outcomes</b>	
<b>CO1</b>	Able to understand the basics of Barrier free Environment and its need in the current world.
<b>CO2</b>	Know the Principles, Goals of Barrier free Environment and various design spectrums.
<b>CO3</b>	Understand the Barrier free design: Universal - Inclusive - Accessible Design, Universal Design for Learning (UDL) and Use of Assistive technologies.
<b>CO4</b>	A mini project will help the student to deal with projects in future.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>Introduction</b>	Introduction to Barrier free environment, Scope and Need in Architectural design. Types of disabilities- Non-ambulatory, Semi ambulatory, visually challenged, Hearing Impaired.	6	1 & 2
2	<b>Standards and Guidelines</b>	Standards and Norms for various facilities to meet disabled people's standards for safety, convenience and usability.	7	2
3	<b>Deep Dive-1</b>	Barrier free designing in various building types : Institutional,	5	3
4	<b>Deep Dive-2</b>	Barrier free designing in various building types : Residential, Recreational etc.	4	3 & 4
5	<b>Mini Project</b>	As per brief introduced by course teacher (based on unit 03 and 04).	10	4

<b>Reference Books:</b>	
Creating Inclusive Environments, 2012 - Edward Steinfeld and Jordana L. Maisel, Universal Design –	
Universal Principles of Design, 2003 by William Lidwell, Kritina Holden, Jill Butler	
Universal Methods of Design, 2012 by Bruce Hanington, Bella Martin	
Barrier-Free Design, 1996 CPWD by James Holmes-Seidle	
<b>e-Learning Source:</b>	
A Review of Barrier-Free Design in Built Environment by Anjali Sharma and Kuldeep Kumar	
Barrier Free Design for Disabled Persons by PI Falta	
Behavioral Factors in Barrier-Free Design By Adaptse EA UFMG	

PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>	3	1	2	2	3	3	1	1					2	3	2	3
<b>CO2</b>	3	1	1	2	3	2	1	2					1	3	1	2
<b>CO3</b>	2	2	2	1	3	2	2	1					3	3	3	1
<b>CO4</b>	2	1	2	2	3	3	2	1					3	3	3	2

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

 <b>Ar. Shweta Verma</b> Name & Sign of Program Coordinator	 Sign & Seal of HoD
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## Integral University, Lucknow

<b>Effective from Session: 2021 - 2022</b>							
<b>Course Code</b>	AR412	<b>Title of the Course</b>	Elective-II (Urban Design)	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	IV	<b>Semester</b>	VII	<b>2</b>	-	-	<b>2</b>
<b>Pre-Requisite</b>	Nil	<b>Co-requisite</b>	Nil				
<b>Course Objectives</b>	<ol style="list-style-type: none"> <li>1. Initiating students in theory and understanding of Architectural Urban Design.</li> <li>2. Making students well versed in the process of Urban Design at undergraduate level so that they could further develop in the profession or studies at postgraduate levels if the student so desires.</li> <li>3. Studying and finding better techniques that can be applied to improve Urban Design.</li> <li>4. Understanding the scope and limitation of Urban Designing.</li> <li>5. Understanding Urban Design as a profession.</li> <li>6. Discussion on Previous research works/ articles on Urban Design.</li> <li>7. Understanding Types of Urban Designing techniques and various Applications.</li> </ol>						

Course Outcomes	
<b>CO1</b>	Understand Urban Design and its process.
<b>CO2</b>	Study and find better techniques of Urban Design.
<b>CO3</b>	Analyze, troubleshoot, and implement Urban Design related solutions with previously done works and researches.
<b>CO4</b>	Learn the process of documenting the work of Urban Design.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>Introduction</b>	Concepts of Urban Design as distinct from architectural design and city planning.	8	1, 2 & 3
2	<b>Urban design terminologies</b>	Parameters of urban design, concept of space and its articulation principles of urban design,	8	3 & 4
3	<b>Effects of urban growth</b>	Effect of urban growth patterns	4	4
4	<b>Effects on city</b>	the resultant influence of urban design forms on cityscape.	6	1 & 4
5	<b>Urban Design now</b>	Evolution and reconstructive study of live examples of urban design.	6	4

**Reference Books:**

The Death and Life of Great American Cities by John Jacobs

Image of the City by Kevin Lynch

A new theory of urban design by Christopher Alexander

**e-Learning Source:**

[https://uccrn.ei.columbia.edu/sites/default/files/content/pubs/ARC3.2-PDF-Chapter-5-Urban-Planning-and-Design-wecompress.com\\_.pdf](https://uccrn.ei.columbia.edu/sites/default/files/content/pubs/ARC3.2-PDF-Chapter-5-Urban-Planning-and-Design-wecompress.com_.pdf)

<https://www.sandiego.gov/sites/default/files/legacy/planning/genplan/pdf/generalplan/adoptedudelem.pdf>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO6	PSO7
	<b>CO1</b>	1	3	3	2	3	2	3	1					2	2	2	2	
<b>CO2</b>	2	2	3	3	3	2	1	3					3	3	1	2		
<b>CO3</b>	3	3	3	1	2	2	1	1					3	3	2	3		
<b>CO4</b>	2	3	3	1	1	2	1	1					2	2	3	2		

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

<p><b>Ar. Shweta Verma</b> Name &amp; Sign of Program Coordinator</p>	<p><b>Sign &amp; Seal of HoD</b></p>
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## Integral University, Lucknow

<b>Effective from Session: 2021 - 2022</b>							
<b>Course Code</b>	AR413	<b>Title of the Course</b>	Elective-II (Interior Design)	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	IV	<b>Semester</b>	VII	<b>2</b>	-	-	<b>2</b>
<b>Pre-Requisite</b>	Nil	<b>Co-requisite</b>	Nil				
<b>Course Objectives</b>	<ol style="list-style-type: none"> <li>1. Initiating students in theory and understanding of Interior Design.</li> <li>2. Making students well versed in the process of Interior Design at undergraduate level so that they could further develop in the profession or studies at postgraduate levels if the student so desires.</li> <li>3. Studying and finding better techniques that can be applied to improve Interior Design.</li> <li>4. Understanding the scope and limitation of Interior Designing.</li> <li>5. Understanding Interior Design as a profession.</li> <li>6. Discussion on Previous research works/ articles on Interior Design.</li> <li>7. Understanding Types of Interior Designing techniques and various Applications.</li> </ol>						

Course Outcomes	
<b>CO1</b>	Understand Interior Design and its process.
<b>CO2</b>	Study and find better techniques of Interior Design.
<b>CO3</b>	Analyze, troubleshoot, and implement Interior Design related solutions with previously done works and researches.
<b>CO4</b>	Learn the process of documenting the work of Interior Design.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	<b>Unit 1</b>	Principles of Interior Design and their application.	6	1, 2 & 3
2	<b>Unit 2</b>	Elements of Interior Design – Space, light and illumination, color, texture, furniture (movables & built-in), fittings and fixtures.	6	3 & 4
3	<b>Unit 3</b>	Understanding the works of Great Masters.	6	4
4	<b>Unit 4</b>	Modern trends and contemporary attitudes to Interior Design e.g. Modular furniture.	6	1 & 4
5	<b>Unit 5</b>	Design of interiors and making estimates for the designed projects.	8	4

<b>Reference Books:</b>	
Time-Saver Standards for Interior Design and Space Planning by Joseph De Chiara	
The Interior Design Reference & Specification by Mimi Love, Chris Grimley	
The 100 most important designers of the past 100 years by Jennifer Boles, Inspired Design	
Residential Interior Design: A guide to Planning Spaces by Maureen Mitton	
Deborah Needleman, Domino: The Book of Decorating	
<b>e-Learning Source:</b>	
<a href="https://www.2020spaces.com/ebook-how-to-start-interior-design-business/">https://www.2020spaces.com/ebook-how-to-start-interior-design-business/</a>	
<a href="https://www.2020spaces.com/ebook-choosing-the-best-interior-design-software/">https://www.2020spaces.com/ebook-choosing-the-best-interior-design-software/</a>	

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO6	PSO7
	<b>CO1</b>	1	3	3	2	3	2	3	1					2	2	2	2	
<b>CO2</b>	2	2	3	3	3	2	1	3					3	3	1	2		
<b>CO3</b>	3	3	3	1	2	2	1	1					3	3	2	3		
<b>CO4</b>	2	3	3	1	1	2	1	1					2	2	3	2		
<b>CO5</b>																		

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

<p><b>Ar. Shweta Verma</b> Name &amp; Sign of Program Coordinator</p>	<p><b>Sign &amp; Seal of HoD</b></p>
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## Integral University, Lucknow

<b>Effective from Session: 2021 - 2022</b>							
<b>Course Code</b>	AR414	<b>Title of the Course</b>	Elective-II (Architectural Conservation)	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Year</b>	IV	<b>Semester</b>	VII	2	-	-	2
<b>Pre-Requisite</b>	Nil	<b>Co-requisite</b>	Nil				
<b>Course Objectives</b>	To enable students a choice of subjects at the undergraduate level itself so that these could be further developed in the profession or studies at Post Graduate levels if the student so desires.						

Course Outcomes	
<b>CO1</b>	Understand conservation and its process.
<b>CO2</b>	Study and find better techniques of conservation.
<b>CO3</b>	Analyze, troubleshoot, and implement conservation related solutions with previously done works and researches.
<b>CO4</b>	Learn the process of documenting the work of conservation.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Introduction	Definitions of basic terms in conservation, natural and cultural heritage, history and theory of conservation.	4	1
2	Introduction to UNESCO	Legislation in conservation. Meaning of cultural heritage, its conservation and sustainability, ICOMOS charters and UNESCO discourse on cultural heritage conservation.	6	1,2
3	Conservation of Built Heritage	To understand the meaning of the built heritage conservation, its integration in environmental planning and development. Meanings of vernacular architecture for local communities.	8	2,3
4	Conservation Processes	Conservation methods are consolidation, reproduction, reconstruction, preservation, deterioration perversion, rehabilitation, and restoration.	8	3,4
5	Documentation process.	Relating the knowledge and understanding to present the document by past and present situation and uses.	6	1,2,3,4

**Reference Books:**

Architectural Conservation by Aylin Orbasil

A history of Architectural Conservation by Emily Gunzburger Makas

The Conservation Movement: A History of Architectural Preservation: Antiquity to Modernity by Miles Glendinning

**e-Learning Source:**

<https://www.un.org/youthenvoy/2013/08/unesco-united-nations-educational-scientific-and-cultural-organization/>



<https://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf>

<http://orcp.hustoj.com/wp-content/uploads/2016/01/1964-The-context-of-the-Venice-Charter-1964.pdf>

[https://sist.sathyabama.ac.in/sist\\_coursematerial/uploads/SAR1502.pdf](https://sist.sathyabama.ac.in/sist_coursematerial/uploads/SAR1502.pdf)

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
<b>CO1</b>	1	3	3	2	3	2	3	1					1	1	1	3		
<b>CO2</b>	2	2	3	3	3	2	1	3					1	2	2	3		
<b>CO3</b>	3	3	3	1	2	2	1	1					1	1	1	3		
<b>CO4</b>	2	3	3	1	1	2	1	1					2	1	1	2		

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

 <b>Ar. Shweta Verma</b> Name & Sign of Program Coordinator	 <b>Sign &amp; Seal of HoD</b>
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## Integral University, Lucknow

Effective from Session: 2021 - 2022							
Course Code	AR415	Title of the Course	Practical Training	L	T	P	C
Year	IV	Semester	VIII	-	-	-	3
Pre-Requisite	Nil	Co-requisite	Nil				
<b>Course Objectives</b>	<ol style="list-style-type: none"> <li>1. Each student is required to undergo 'Practical Training' in the VIII Semester. The Head of the Department will approve the office/ institution of the 'Practical-Training' in consultation with the Training Coordinator / Training and Placement cell of the University.</li> <li>2. The aim and objectives of the 'Practical Training' is to enable the students to gain the kind and range of practical experience which will prepare them for their likely responsibilities, immediately after qualifying B. Arch. Course.</li> <li>3. The student must try to seek a variety of experiences in his/her 'Training office' to acquaint himself/herself with various works, procedures etc. of the architecture profession. Preferably the students must opt their Training offices in developed cities to have maximum exposure of new material, technologies, building practices etc.</li> </ol>						



Course Outcomes	
<b>CO1</b>	Become a responsible person immediately after qualifying B.Arch. courses.
<b>CO2</b>	Learn various work, procedures etc. of the architecture profession.
<b>CO3</b>	Explore new material, technologies, building practices, etc.
<b>CO4</b>	Understand the site features and way of construction with various technologies.
<b>CO5</b>	Enhance the professional development skill to deal with the client, labor, vendor, etc.
<b>CO6</b>	Know the environment of a well-established office that can be helpful for future purposes.

S. No.	Title	Content
1	Aim and Objectives of Practical Training	The student must try to seek a variety of experiences in his/her 'Training office' to acquaint himself/herself with various works, procedures etc. of the architecture profession. Preferably the students must opt their Training offices in developed cities to have maximum exposure of new material, technologies, building practices etc.
2	Criteria for selection of a Training Office	<ul style="list-style-type: none"> <li>● In case of a proprietorship firm, the proprietor shall be an architect; also, the firm shall have at least two or more architects as employees/associates.</li> <li>● In the case of 'Partnership' / 'Pvt. Ltd.' Firms, at least one of the partner/directors shall be an architect, and the firm shall have at least one or more architects as Partner/director/employee/ associate.</li> <li>● In case of a 'Public-sector' /'State or Central Government office/academic institute or a multinational organization", there shall be a separate wing for architectural consultancy works consisting of architects.</li> <li>● The said architect (Proprietor/Partner/Director/Head of Department/Chief Architect etc.) shall have at least 05 years of working experience and the organization should have a variety of projects.</li> <li>● Training in Foreign Country can be undertaken under the Registered Architect of that Country but has to be specifically approved and monitored by the Head of the Department.</li> </ul>
3	Arranging/Fixing-up the Training office	<ul style="list-style-type: none"> <li>● The Faculty of Architecture, Integral University, directly or through the 'Training and Placement Cell' of the University may provide a list of offices, along with their addresses of some well-established and recognized architects. Addition, alteration and deletion in such a list may be made from time to time in conformity to 'Criteria' as laid down for selection of a training office.</li> <li>● After seeking advice from 'Training and Placement Cell', the student shall make his/her options available to the Training and Placement Cell.</li> <li>● With the help of 'Training and Placement Cell', the student shall make all efforts to settle his/her appointment as trainee with an established and recognized architect.</li> </ul>
4	Working Relationship between the Architect and the Trainee	<p>The architect shall provide enough works to the trainee to keep him/her occupied. He shall expose the trainee to different aspects of professional practice. The tasks given to the trainee shall include preparation of the following:</p> <ul style="list-style-type: none"> <li>● Sketch designs, presentation drawings etc.</li> <li>● Municipal drawings according to the byelaws,</li> <li>● Workings drawings and details.</li> <li>● Estimates, bill of quantities &amp; specifications.</li> <li>● Models, perspectives and photographs. Reports, progress charts etc.</li> <li>● Besides above the trainer will facilitate; Discussions with the Clients, Structural Consultants, Services Consultants etc.</li> </ul>
5	Honorarium/Stipend	<ul style="list-style-type: none"> <li>● The architects usually pay some amount as honorarium/stipend to meet out of pocket expenditure to the trainee. The University shall have no objection if the trainees accept/receive such honorarium/stipend.</li> <li>● The mode and amount of the honorarium shall depend upon the office and be based upon a mutual agreement between the employing architect and the trainee. However, it shall neither be a claim of the trainee nor binding on the architect but for proper professionalism and to maintain the dignity of profession, the</li> </ul>

		<p>training office of architects pay a respectable amount as stipend/honorarium.</p> <ul style="list-style-type: none"> <li>• The University/Training and Placement cell of the Institute shall not in any way be responsible for the payment against any sorts of damages, whatsoever.</li> </ul>
6	Code of conduct for the trainee	<ul style="list-style-type: none"> <li>• He/she shall abide by the rules, regulations and general instructions of the office/firm. He/she shall remain punctual and regular in attendance.</li> <li>• He/she shall make all efforts to learn the work involved in the profession, and if so required for work, shall attend the office beyond the scheduled time in the office.</li> <li>• He/she shall respect and obey the senior members of the office/firm.</li> <li>• He/she shall take up the job with full responsibility and show utmost interest in the work allotted.</li> <li>• He/she shall inform the institute/training and placement cell about joining in the training office, its address and contact numbers. He/she shall also inform the address of the accommodation acquired during the training period.</li> <li>• He/she shall remain in regular touch with the University/ 'Training and Placement Cell' and shall keep the Training and Placement Cell fully informed about his/her progress in the training office.</li> <li>• In case of any complaint or misconduct, the University/Training and Placement Cell may take suitable and strict action against the student.</li> </ul>
7	Joining and Leaving the Training Office	<ul style="list-style-type: none"> <li>• The trainee is expected to join the training office on the scheduled date, and submit his 'Joining Report' on the letterhead of the office duly signed by Head of the Training to the Training Coordinator Institute in the Performa prescribed for the purpose and contained in the Log Book.</li> <li>• The trainee must obtain a 'No Dues Certificate' duly and get relieved from the office at the end of the training period or before changing the 'Training Office'. The trainee must submit this 'No Dues Certificate' along with the Log Book.</li> </ul>
8	Change of Training Office	<ul style="list-style-type: none"> <li>• In case of any emergency, a trainee may be permitted to change the training office/place of training once only during the entire period of training. He/she shall inform the Principal/Director/Head of Department/Officer in-charge of the 'Training and Placement Cell', and seek prior permission for such a change</li> <li>• The total duration of the practical training shall be the sum of the period of stay in different offices. It shall be in conformity with the 'Duration of Training' as prescribed in the 'Ordinances, Scheme of Examination &amp; Syllabus' of the University</li> </ul>
9	Continuous Assessment and Monitoring	<p>The Trainee will have to submit through e-mail fortnightly progress reports to the Training Coordinator of the Department of Architecture, Integral University, on the prescribed format, who shall monitor the progress of each and every trainee and suggest remedial measures as and when required. The Training Coordinator will also remain in constant touch with the Trainer to ensure that the trainee is going on as per the aim and objectives of the training.</p>
10	Final Submissions	<p>After completion of practical training, the trainee is required to submit the following in the University:</p> <ul style="list-style-type: none"> <li>• 'Certificate' of successful completion of the practical training mentioning the attendance in percentage, from the architect.</li> <li>• 'Daily Diary' with details of the day to day work record, which will be returned to the student after assessment and viva voce examination. The suggested 'Performa' of the page of the daily diary is available in the prescribed 'Log-Book'.</li> <li>• 'Training report' supplemented with the prints and documents of work done during practical training. The prints and documents shall be obtained with the permission of the architect's office and shall be duly signed by the 'Supervisor'.</li> <li>• Training report shall be submitted in three copies. First copy shall be returned to the student after assessment of sessional marks and viva voce examination. The second copy shall be retained by the Training and Placement Cell/library. These shall be presented in A-4 size with ring binding.</li> </ul>
11	Internal Assessment (Sessional Marks)	<p>An internal assessment of the training will be conducted by an internal jury consisting of Two Senior Faculty Members and the Training Coordinator.</p>
12	Viva Voce Examination	<p>Viva Voce Examination shall be conducted by a Jury constituted by the Examination Department of the University which will consist of following Members:</p> <ul style="list-style-type: none"> <li>• Two Senior Faculty Members</li> <li>• One Practising Senior Architect.</li> </ul>
13	Failures	<p>In case the student/ trainee remains unsuccessful or fails in completing his/ her training, internal assessment or viva- voce examination, he/she shall have to repeat the whole semester and will not be promoted to the next class till successfully completing and clearing the Practical Training.</p>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																		
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	-	3	2	-	3	-	-	-					3	2	3	3		
CO2	3	3	2	3	-	-	1	3					3	2	3	3		
CO3	2	2	3	3	2	2	1	3					3	2	3	3		
CO4	2	3	3	2	3	3	1	3					3	2	3	3		
CO5	1	3	3	2	3	1	1	3					3	2	3	3		
CO6	-	3	1	-	2	1	-	-					3	2	3	3		

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

 <b>Ar. Shweta Verma</b> Name & Sign of Program Coordinator	 <b>Sign &amp; Seal of HoD</b>
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