

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
*(Formerly West Bengal University of Technology)*  
**Syllabus for B. Sc. In Interior Design**  
**(Effective for Academic Session 2019-2020)**

**Semester-II**

**BID201**

**FullMarks:100**

**Historical, Contextual & Cultural Studies – II (Theory)**

<b>Objectives</b>	
<ul style="list-style-type: none"> <li>• To develop students research and analytical skills.</li> <li>• To develop students written, recording and referencing skills with reference to associated Art, Craft and design developments.</li> <li>• To equip the students with the necessary knowledge &amp; understanding of the chronological and cultural history associated to the developments in construction and Architecture through historical periods.</li> <li>• To give students knowledge and understanding of modern innovations and key developments in technologies in construction and Architecture.</li> <li>• To provide students with the understanding of architectural terms and terminology.</li> </ul>	
<b>Units</b>	<b>Course Content</b>
1	<p><b>Brief History of Architecture:</b></p> <ul style="list-style-type: none"> <li>• Classical Architectural Styles and Developments – Ancient Greece &amp; Rome.</li> <li>• Early Christianity (Byzantine) and the age of Church Building (Gothic &amp; Romanesque).</li> <li>• Idea of Re-birth and Renaissance in Europe and developments in construction and architectural techniques and technologies.</li> <li>• Neo Classical Architecture and Interiors.</li> <li>• 17<sup>th</sup> to 19<sup>th</sup> Century styles and developments in Interior Design and Architecture.</li> <li>• Modern Architecture.</li> </ul>
2	<p><b>History of Technical Developments and Innovations:</b></p> <ul style="list-style-type: none"> <li>• Concrete</li> <li>• The arch</li> <li>• The Dome</li> <li>• Columns</li> <li>• Vaulted Ceilings</li> <li>• Plinths</li> <li>• Pillars and Girders</li> <li>• Rose windows - Etc.</li> </ul>
3	<p><b>Basic Terminologies related to:</b></p> <ul style="list-style-type: none"> <li>• Architecture / Construction / Interior Design</li> </ul>
<b>References</b>	
<ol style="list-style-type: none"> <li>1. Sir Banister Fletcher, A History of Architecture, CBS Publications (Indian Edition), 1999</li> <li>2. Spiro Kostof – A History of Architecture – Setting and Rituals, Oxford University Press, London, 1985</li> <li>3. Leland M Roth; Understanding Architecture: Its elements, history and meaning; Craftsman House, 1984</li> <li>4. Allen Edward, <i>How Buildings Work!</i> Oxford University Press</li> <li>5. De Chiara Joseph &amp; Callender John, <i>Time Saver Standards for Building Types for Architectural Types, Interior Design</i>, McGrawHill Book Co.</li> <li>6. Leniham J &amp; Fletcher W W, <i>The Build Environment</i>, Environment &amp; Man, Vol. 8</li> <li>7. Blackie McKay W B, <i>Building Construction</i>, Vol 1-4, Orient Longman</li> <li>8. Shah, Kale &amp; Patki, <i>Building Drawing</i>, Tata McGraw Hill Pub. Co., New Delhi.</li> <li>9. Technical Teachers Training Institute, <i>Civil Engineering Materials</i>, Tata McGraw Hill</li> </ol>	
<b>Websites</b>	
<a href="https://architecturaltrust.org/outreach/education/glossary-of-architectural-terms/">https://architecturaltrust.org/outreach/education/glossary-of-architectural-terms/</a>	

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**BID281**

**Full Marks: 100**

**Model Making - I (Practical) SESSIONAL**

**Overview**

This module introduces students to model making for architecture and interiors, specifically ‘Block models’, and the exploration of built structures and forms. ‘Block models’ show only the external form of the building, to visualize architectural forms three-dimensionally, showing the contours only and model buildings are mainly blocks with limited detail.

**Objectives**

To enable the students to:

Develop practical skills in designing in 3 Dimensions, exploring relationships between form and space.

- Develop making skills and understanding of various model making materials, suitable applications and representations for visual interpretations of buildings, interiors and products.
- Develop an understanding of the function of space through 3 dimensional interpretations of structure and form.
- Develop critical design thinking and evaluative processes in relation to desired objectives and design Realization.
- Develop action planning skills for future learning.

Units	Course Content
1	<b>Creative visual design ideas development for block model of architectural form.</b>
2	<b>Materials for model making</b>
3	<b>Exploration of Model Making Techniques</b>
4	<b>Investigation &amp; Exploration of Structure &amp; Form</b>
5	<b>Realization of Design from 2 Dimensional Drawings to 3 Dimensional Form(s)</b>
6	<b>Integration of contextual references through visual design.</b>
7	<b>Evaluation of outcomes against defined design objectives and desired visual design outcomes.</b>
8	<b>Generation of action plan(s) for future learning.</b>

**References**

**Websites**

<https://www.arch2o.com/architectural-model-complete-guide/>  
<http://www.modelmakers-uk.co.uk/students-advice>  
<http://www.instructables.com/id/How-to-make-an-Architectural-Model-by-hands/>

**Books**

Architectural Model Building: Tools, Techniques, and Materials 1st Edition  
 by Roark T. Congdon (Author) - ISBN-13: 978-1563677731  
 Model Making (Architecture Briefs) 1st Edition by Megan Werner (Author) - ISBN-13: 978-1568988702

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**BID202**

**Full Marks: 100**

**Construction Materials, Techniques & Technology - II (Theory)**

**Objectives**

To enable the students to:

- Gain understanding of the varied materials, systems and services within the construction and design of buildings and spaces.
- Understand various factors to be kept in mind to ensure sustainability, safety and longevity while designing a building and/or any super structure.

Units	Course Content
1	Structural Systems
2	Load, Support, Span
3	Structural Behavior
4	Compression, Tension
5	Influencing Factors- Seismic, Wind, Time
6	Lifts and Escalators / Travelators
7	Service Systems
8	PHE
9	Electrical / Illumination
10	HVAC
11	IT/ Networking
12	Fire
13	CCTV, Building / Home / Office Management System

**References**

**Books**

1. Agnew, J.C. 'A House of Fiction: Domestic Interiors and the Commodity Aesthetic', in Bronner, S. (ed.) *Consuming Visions: Accumulation and Display of Goods in America 1880- 1920*. New York: Norton, 1989.
2. Ayres, James. *Domestic Interiors: The British Tradition, 1500-1850*. New Haven and London: Yale University Press, 2003.
3. Baker, Malcolm. 'Public Images for Private Spaces? The Place of Sculpture in the Georgian Domestic Interior', *Journal of Design History*, 20:4 (2007), 309-23.
4. Beard, Geoffrey. *Craftsmen and Interior Decoration in England, 1660-1820*. London: Bloomsbury Books, 1986.
5. Bryant, Julius. 'Curating the Georgian Interior: From Period Rooms to Marketplace?' *Journal of Design History*, 20:4 (2007), 345-50.

**Videos**

[https://www.youtube.com/watch?v=RocreN7\\_sq](https://www.youtube.com/watch?v=RocreN7_sq) –

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**BID291**

**Full Marks: 100**

**Technical Drafting – II (Practical)**

**Objectives**

To enable the students to:

- Develop professional standardized industry technical drafting skills.
- Understand the concept of designing 2D & 3D views of the furniture & interior spaces.
- Apply correct technical processes and terms to drawings, plans and layouts.

Units	Course Content
1	1: Lines: Types standard and application 2: Orthographic projection 3: Isometric View 4: Oblique View 5: One point Perspective View
2	1: Material Symbols 2: Carpentry Joints 3: Doors 4: Windows 5: Staircases 6: Partition 7: False Ceiling 8: Paneling 9: Typical Detail of a Kitchen Counter
3	10: Furniture layout 11: Elevation – Living Room (4 walls) 12: Elevation – Master’s Bed Room (4 walls) 13: Elevation – Kids Bed Room (4 walls) 14: Elevation – Kitchen ( 4 walls) 15: Elevation – Bathroom (2 walls) 16: Flooring layout 17: Reflected False ceiling layout 18: Electrical layout 19: Perspective – Varied Spaces

**References**

**Books**

- French Thomas E, *Engineering Drawing & Graphic Technology*, McGraw Hill, New York.
- Millar Max, *KnowHow to Draw*, B T Batsford Ltd., London
- Shah, Kale & Patki, *Building Drawing*, Tata McGraw Publishing Co., New Delhi

**Websites**

- [https://www.designingbuildings.co.uk/wiki/Types\\_of\\_drawings\\_for\\_building\\_design](https://www.designingbuildings.co.uk/wiki/Types_of_drawings_for_building_design)

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**BID203**

**Full Marks: 100**

**Colour, Light & Space for Interiors (Theory)**

**Objectives**

To enable the students to:

- To gain insight into the factors to be considered while planning homelighting.
- To learn to evaluate the illumination available at task in relation to different activities and plan appropriate lighting.
- To know the effect of light and colour together on interiors.
- To understand the theory of colour.
- To understand the application of colour in interiors.
- To know the effect of light and colour together on interiors.
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Units	Course Content
1	<b>Introduction to:</b> <ul style="list-style-type: none"> <li>• Colour theory</li> <li>• The colour wheel</li> </ul>
2	<b>The Prang Colour System</b> <ul style="list-style-type: none"> <li>• <b>Hue:</b> classes of colour (primary, binary, intermediate, tertiary, quaternary), neutrals, changing of hues, warm &amp; cool colours, advancing &amp; receding, hues &amp; the seasons.</li> <li>• <b>Value:</b> value of normal colours, tints &amp; shades, changing of values, effects of different values</li> <li>• <b>Intensity:</b> dull and bright colours, complimentary colours, changing of intensity, texture &amp; its influence on intensity &amp; taste</li> </ul>
3	<b>The Munsell Colour System</b> <ul style="list-style-type: none"> <li>• The colour sphere</li> <li>• Munsell colour notation</li> <li>• Complementary hues in Munsell colour system</li> <li>• Hue, value, chroma</li> <li>• Colours and emotions</li> <li>• Effect of colour on each other</li> </ul>
4	<b>Principles of Design Applied to Colour</b> <ul style="list-style-type: none"> <li>• <b>Harmony in colour:</b> standard colour schemes (related &amp; contrasting harmonies), how to use colour harmonies, background colours, keyed colours through neutralizing, mixing etc</li> <li>• <b>Balance in colours:</b> balancing dull and bright colours, light &amp; dark colours, warm &amp; cool colours, crossing or repetition.</li> <li>• <b>Proportion in colour:</b> law of colour areas</li> </ul>
5	<b>Applications of Colour in Various Elements of Interiors</b> <ul style="list-style-type: none"> <li>• Summing up of interiors in various colour schemes and its relation to work output</li> </ul>
6	<b>Effect of Colour on Texture</b>
7	<b>Introduction to Lighting in Interior</b> <ul style="list-style-type: none"> <li>• The household activities with special reference to light requirement</li> <li>• Cultural and social aspects of lighting</li> <li>• Physiology of vision</li> <li>• Lighting sources: natural lighting and artificial lighting (traditional to modern)</li> <li>• Light measurements and units of measurement of lighting</li> </ul>

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8	<p><b>Quantity of Illumination</b></p> <ul style="list-style-type: none"> <li>• Factors affecting the quantity of illumination in a room: room proportion, colour, texture and cleanliness of room surface, lamp lumen, lamp lumen depreciation</li> <li>• Competition of room index, coefficient of utilization, maintenance factor of luminance</li> <li>• Planning lighting installation for a given interior space</li> <li>• Evaluation of illumination at task/work place against the recommended requirements of illumination for various activities (ISI &amp; IES recommendations)</li> </ul> <p><b>Quality of Illumination</b></p> <ul style="list-style-type: none"> <li>• Colour rendition</li> <li>• Spatial distribution of light: direct, indirect, diffused</li> <li>• Glare: luminance contrast, luminance uniformity</li> </ul>
9	<p><b>Types of Lighting</b></p> <ul style="list-style-type: none"> <li>• Local &amp; general lighting</li> <li>• Applied lighting</li> <li>• Architectural lighting</li> <li>• Recessed lighting</li> <li>• Luminous walls &amp; ceilings</li> </ul>
10	<p><b>Luminance &amp; Lighting</b></p> <ul style="list-style-type: none"> <li>• Controls type, selection, care, maintenance and economic use, lamp holders, lighting switches, motion sensors.</li> </ul>
11	<p><b>Lighting for Outdoor Living &amp; Gardens</b></p>
12	<p><b>Effects of colour on Human Behavior</b></p>

**References**

**Books**

1. Davidson J, *The Complete Home Lighting Book*, Casell, UK, 1997
2. De Chiara Joseph & Callender John, *Time Saver Standards for Architectural Types & Interior Design & Space Planning*, Mc Graw Hill Book Co.
3. Wiertide, Elizabeth, *Lighting*, Ryland, Peters & Small, London
4. Whitehead R, *Home Lighting Ideas Bedrooms & Baths*, Rockport Publishers, Massachusetts
5. Beazley Mitchell, *Colour Book*, Reed Consumer Books Pvt. Ltd.
6. Chijiwa Hideaki, *Colour Harmony*; Rockport Publishers
7. Halse A. O, *The Use of Colour in Interiors*; McGraw Hill Book Company
8. Stochton Tomes, *Designer's Guide to Colour*, Chronicle Books

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**BID282**

**Full Marks: 100**

**Design Studio II – Residential Interior Design Project (Practical) SESSIONAL**

**Outline**

This module introduces you to the observing and recording techniques and skills, necessary to understand and communicate the interior space design of residential spaces.

You will consider the environmental and human interactions within the space, and use this to help inform you during the design process.

The module fosters creative, divergent and critical thinking from the view point of the designing of interior residential spaces, allowing students to fully engage and explore the experience, function and atmosphere of spaces. Students learn to express their ideas, primarily through freehand drawing and model making and communicate their design ideas.

**Objectives**

To enable the students to:

- Acquire knowledge of principles of Interior Design for residential spaces.
- Learn to provide adequate facilities for work, relaxation, comfort, privacy, aesthetics, and maintenance through design and proper choice of materials, services, fittings and fixtures in interiors of residences.
- Gain understanding of furniture design through anthropometric measurements
- Make designs and working drawings for various residential interior schemes and understanding their execution
- Learn techniques of presentation of designed interiors (manual)
- To develop technical layout, drafting and practical drawing and design skills
- To familiarize students with various symbols and signs used on plans and drawings for interior and architectural drawings.
- To develop awareness and understanding of the relationship of spaces within a given design context.
- To develop design skills within the constraints of a given interior design project brief.
- Understand basic requirements and infrastructural requirements, utilization of design studio and to gain hands on experience about design studio.
- Understand the benefits of using sustainable materials on adhering to Green Building legislation, The financial implications and benefits to the environment (both local and wider).

Units	Course Content
1	<b>Design sketches and visual ideas for residential interior design.</b> <ul style="list-style-type: none"> <li>• Front view, Plan, Sections</li> <li>• Perspective of Drawings (One Point &amp; Two Point)</li> </ul>
2	<b>Practical Design Layouts &amp; Technical Drafting –</b> <ul style="list-style-type: none"> <li>• Complete Floor Layouts &amp; Furniture Layouts using correct measuring, scale, drafting skills and symbols.</li> </ul>
3	<b>Detail Documentation, Drawing, Observation and Notes, Quantification, Reporting, Presentation.</b>
4	<b>Study of Factors Influencing Decisions Related to Furnishing of Residential Interior Spaces</b> <ul style="list-style-type: none"> <li>• Principles of design, needs and preferences, climate, availability and budget</li> </ul>
5	<b>Factors to be Considered While Designing Interiors</b> <ul style="list-style-type: none"> <li>• Regulation and Bylaws of the plan sanctioning authority</li> </ul>

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	<ul style="list-style-type: none"> <li>● Establishment of areas for different units - function, furniture requirement &amp; number of persons</li> <li>● Orientation</li> <li>● Grouping of user's area</li> <li>● Circulation between and within user's area</li> <li>● Light and Ventilation</li> <li>● Flexibility</li> <li>● Privacy</li> <li>● Roominess (spaciousness)</li> <li>● Services</li> <li>● Aesthetics</li> <li>● Requirement for air conditioning &amp; central heating</li> <li>● Cost</li> </ul>
6	<b>Assessing &amp; Allocating Space for Various Activities in Different Rooms</b> <ul style="list-style-type: none"> <li>● Living Room</li> <li>● Dining Room</li> <li>● Bedrooms</li> <li>● Kitchen</li> <li>● Pantry</li> <li>● Foyer, Lobby, Corridors</li> <li>● Store</li> <li>● Balcony / open areas</li> </ul>
7	<b>Furniture requirements in the afore mentioned rooms</b>
8	<b>Study &amp; Analysis of Basic Floor Layouts (Standards) in Relation to Principles of Interior Designing.</b> <ul style="list-style-type: none"> <li>● Planning simple furniture layouts of the different interior spaces such as: living room, dining room, bedroom, bathroom, kitchen, pantry, utility, foyer, corridor, passage, balcony etc</li> </ul>
9	<b>Judging &amp; Analyzing the Afore-Mentioned Plans &amp; Calculation of Planning Efficiency</b>
10	<b>Sectional Elevations of the Simple Furniture Layouts of the Different Interior Spaces</b>
11	<b>Application of Colour, Texture &amp;. Pattern through Techniques of Rendering &amp;. Presentation</b>
12	<b>Study &amp; Analysis of Basic Floor Layouts (Standards) in Relation to Principles of Interior Designing.</b> <ul style="list-style-type: none"> <li>● Planning simple furniture layouts of the different interior spaces such as: living room, dining room, bedroom, bathroom, kitchen, pantry, utility, foyer, corridor, passage, balcony etc</li> </ul>
13	<b>Design Critic (group) – Visual and oral presentation of complete project -</b> <ul style="list-style-type: none"> <li>● Written evaluation and action plan for improvement.</li> <li>● Visual presentation and organization of complete project.</li> <li>● PowerPoint to explain project intentions, evaluations, decisions and rectifications.</li> </ul>



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**References**

**Books**

- Sigfried Giedion. Space, Time and Architecture: The Growth of a New Tradition. Harvard University Press, 1967
- William S. Saunders. Nature, Landscape, and Building for Sustainability: a Harvard Design Magazine Reader. Minneapolis, University of Minnesota Press, 2008.
- Al Gore. The Future: Six Drivers of Global Change. Random House, 2013
- AganTessi, *The House - Its Plan and Use*, JB Lippincott & Co., 1976
- Alexander NJ *Designing Interior Environment*, Harcourt Brace, Johanovich, New York
- Allen Edward, *How Buildings Work*, Oxford University Press
- Conran T, *New House Book*, Guild Publishing, London
- De Chiara Joseph & Callender John, *Time Saver Standards for Building Types for Architectural Types, Interior Design*, McGrawHill Book Co.
- Deshpande, R S, *Modern Ideal Homes for India*, United Book Corporation, 1974
- Faulkner S. *Planning a House*, Holt, Richard & Winson
- Grandjean E, *Fitting the Task to the Man*; Taylor & Francis, London, 1988
- Leniham J & Fletchar W, *The Build Environment*, Environment & Man, Vol. 8, Blackie
- ReviAromar, *Shelter in India*, Vikas Publishing House, New Delhi

**Websites**

- <https://www.dkorinteriors.com/lighting-modern-interior-design/>
- <https://www.hgtv.com/remodel/mechanical-systems/lighting-tips-for-every-room>
- <https://study.com/academy/lesson/what-is-residential-interior-design.html>

**Videos**

- <https://www.youtube.com/watch?v=wjTcUzMDqzY>