NIRMA UNIVERSITY

Institute of Architecture and Planning

Bachelor of Architecture

Semester-III

L	W	S	C
1	2	-	2

Course Code	2AR364
Course Title	Architectural Graphic Skills & Representation-III

Course Learning Outcomes (CLO):
At the end of the course, students will be able to –
- Utilize two-dimensional digital software (Auto CAD, Illustrator, Photoshop or equivalents)
- Maximize possibilities of representation on an analytical level.
- Imagine complex forms using software (Auto CAD, Rhino or equivalents) and will be able to manifest it in a physical model.

Syllabus: **15 weeks (3 hours/week)**   **Total Teaching hours**: **45 Hr**

Unit No.	Syllabus: Topic	Sub Topic	Teaching hours:
1	Representation Techniques using drafting software (Auto CAD or equivalent)	• Fundamental's of CAD Drafting (Setting up Scale & Units, Working With Layers, Line weights, Composition of different scaled drawings in single sheet, Plotting etc) • Advanced Geometry, Pattern making and analysis • Uses of computer generated drawings to execute basic design ideas (Physical model & Drawings)	15 hours
2	Understanding a complex forms & Surfaces (AutoCAD 3D, Rhino or equivalent)	• Loft, sweep, Doubly curved surfaces • Interpenetrations of Solids (Interpenetrations of Flat & Curved Surfaces, Interpenetrations of solid forms) • Multiple Section Method (Digital model, Physical model & Drawings)	20 hours

3	Representation Techniques using other software (Photoshop, Illustrator, In-design or equivalent)	• Understanding difference between Raster & vector base software • Exploring the ides of rendering, composing and compiling architectural work.	10 hours

L= Lecture, W= Workshop, S= Studio, C= Credit

Suggested Readings:

1. Botello, C. (2011). *Adobe Illustrator CS5 illustrated*. Boston: Cengage Learning.
2. Farrelly, L. (2008). *Representational techniques*. Lausanne: AVA Book.
3. Helsel, J. D. (2007). *Engineering drawing and design*. Place of publication not identified: Glencoe Mcgraw-Hill Post.
4. John, E. (2013). *CAD fundamentals for architecture*. London: Laurence King Publishing.
5. Onstott, S. (2011). *Enhancing architectural drawings and models with photoshop*. San Francisco: Wiley Pub.
6. Onstott, S. (2012). *AUTOCAD 2013 AND AUTOCAD LT 2013: ESSENTIALS*. Hoboken, NJ: John Wiley & Sons.
7. Pottmann, H., Asperl, A., Hofer, M., & Bentley, D. (2009). *Architectural geometry*. Exton: Bentley Institute Press.