AMITY UNIVERSITY
UTTAR PRADESH

Course Title: ARCHITECTURAL COMPUTER APPLICATIONS – II

Course Code: ARCH214
Credit Units: 2
Level: UG

L	T	P/S	SW/FW	TOTAL CREDIT UNITS
-	1	2	-	2

#	**Course Title** COMPUTER APPLICATIONS - II	**Weightage (%)**
1	Course Objectives: • To introduce Computer operation principles and explore image editing through a visualcomposition using graphics. • To impart training in Computer aided 2D drafting and 3D modeling through projects	
2	**Prerequisites:** NIL	
3	**Student Learning Outcomes:** **to** learn the different design oriented software's which would help to enhance the students understanding of complex design .	
Course Contents / Syllabus:		
4	**Module I: Basic commands for 2D AutoCAD**	**15**
	Two-dimensional drafting work to be handled in detail on Auto Cad. Complete Drafting, Editing and modification work to be done and presentations be made. Understanding the drawing unit's settings, scales, limits, drawing tools, drawing objects, object editing, and text, dimensioning in ACAD. Transparent overlays, hatching utilities, line type, line weight and color. Multiline, Polyline, etc.Styles, blocks and symbol library in ACAD.	
5	**Module II: Learning Auto Cad (2-D)**	**20**
	Learning basic 2D commands their function and application. Working on layers and colors. Understanding of Text, and dimension styles etc, supported with suitable exercise. Understanding complex commands like Plane, spine, x-refs, Attributes,	

<table>
<tr><td></td><td>Model space & Paper space etc. At least one working plan, elevation and section should be completed.</td><td></td></tr>
<tr><td>6</td><td>Module III: Basic commands for 3D AutoCAD</td><td>20</td></tr>
<tr><td></td><td>Basic commands and usage of 3d Auto Cad drawing. Drafting basic geometrical forms and combinations of the same in three dimensions and their editing. Understanding Co-ordinate systems. Introduction of solid modeling. Learning solid modeling commands, editing solid modeling. Working on different planes.</td><td></td></tr>
<tr><td>7</td><td>Module IV: Learning Auto Cad (3-D)</td><td>45</td></tr>
<tr><td></td><td>Slide facilities script attributes, V-port, editing session. Introduction to 3D-modellingtechnique and construction planes, drawing objects, 3D surfaces setting up elevation thickness and use of dynamic projections in ACAD.Exercise on wire mesh modeling.</td><td></td></tr>
<tr><td>9</td><td>Pedagogy for Course Delivery:
The course will be delivered through Practical Tutorials and Lab exercises</td><td></td></tr>
<tr><td>10</td><td>Assessment/ Examination Scheme:
<table>
<tr><td>Theory (%)</td><td colspan="4">Lab/Practical/Studio (%)</td><td>Total</td></tr>
<tr><td>NIL</td><td colspan="4">100%</td><td>100%</td></tr>
<tr><td colspan="6">Lab/Practical/Studio P/S Assessment</td></tr>
<tr><td>Components (Drop down)</td><td>A</td><td>Pr</td><td>P</td><td>CT</td><td>PORTFOLIO + JURY</td></tr>
<tr><td>Weightage (%)</td><td>05</td><td>10</td><td>15</td><td>20</td><td>50</td></tr>
</table></td><td></td></tr>
</table>

Text & References:

\Texts

- AutoCAD architectural user guide – Autodesk Inc., 1998.
- Shyamtikoo, ‘AutoCAD 2008’
- DH Sanders, ‘Computers Today’ McGraw Hill
- Mitchell, ‘Computer Aided Architectural Design’, Van Nostrand

References

- Broad bent, ‘Design in Architecture’, Wiley International A. Watt, Fundamentals of Three-Dimensional Computer Graphics, Addis Wesley, Massachusetts, 1989.
- The Illustrated AutoCAD 2002 Quick Reference, Ralph Grabowski,

- Autocad 2000: A Problem-Solving Approach, Sham tikoo. Pub: Thomson Learning,1999Computer graphics and design, Radhakrishnan