	J.S. University, Shikohabad Faculty of Mechanical engineering	Value Added Course AY: 2019-20

Established by UP Govt. Act No. 07 of 2015
Recognized by U.G.C. under section 2 (f) of Act-1956

Value Added Courses

Faculty of Mechanical Engineering

	J.S. University, Shikohabad Faculty of Mechanical engineering	Value Added Course
		AY: 2019-20

AUTOCAD MECHANICAL DESIGN AND DRAFTING

Learning Objective:

Learning Objective:

This Course will provide knowledge of Auto-CAD

Duration: 30 Hours. (Theory and Practical)

Course Outcomes: -

After completion of the course the student shall be able to:-

1. Identify and use the key components of the AutoCAD Mechanical user interface
2. Use the fundamental features of AutoCAD Mechanical.
3. Use the precision drafting tools in AutoCAD Mechanical to develop accurate technical engineering drawings.
4. Demonstrate a high level of comfort and confidence with AutoCAD Mechanical through hands-on practice.

	J.S. University, Shikohabad Faculty of Mechanical engineering	Value Added Course
		AY: 2019-20

Syllabus

Unit 1: Introduction to AutoCAD and Mechanical Design

Overview of AutoCAD for mechanical design, User interface and workspace customization

Basic drawing and editing commands for mechanical design, saving and opening files.

Unit 2: Basic Drawing Commands for Mechanical Design

Drawing and modifying lines, circles, rectangles, and polygons, Object snaps and precision drawing techniques, basic dimensioning and annotation for mechanical drawings, Introduction to layers and layer management for mechanical design.

Unit 3: Advanced Drawing Tools for Mechanical Design

Creating arcs, ellipses, and polylines, working with splines and donuts, Hatch patterns, gradient fills, and complex line types, Applying text styles and creating templates for mechanical drawings.

Unit 4: Geometric Dimensioning and Tolerancing (GD&T)

In-depth exploration of GD&T symbols and principles, Creating GD&T annotations for mechanical drawings, Practical applications and exercises in GD&T

Unit 5: Mechanical Design and Detailing

Creating and editing complex mechanical components (bolts, nuts, gears, etc.),Assembly techniques, constraints, and parametric design, Bill of Materials (BOM) generation and parts lists, Introduction to design libraries and content customization.

References

1. Learn AutoCAD by Sunil K. Pandey Paperback
2. AutoCAD 2018 Training Guide by Linkan Sagar Paper back
3. AutoCAD 2019 Training Guide by Linkan Sagar/ Nisha Gupta Paper back
4. Autocad Pocket Reference Paperback – 1 January 2010 by Cheryl R. Shrock (Author) Bpb Publications; 1st Edition (1 January 2010)

Course Coordinator
Er. Sanjeev Kr. Verma

Dean Academic
Dr. Akhilesh

Dean
Dr. Omveer