



J.S. University, Shikohabad
Faculty of Mechanical engineering

Value Added Course

AY: 2019-20

Established by UP Govt. Act No. 07 of 2015
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Value Added Courses

Faculty of Mechanical Engineering



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PRODUCTION DRAWING AND COST ESTIMATION

Learning Objective:

This Course will provide knowledge of Production drawing and cost estimation.

Duration: 30 Hours. (Theory and Practical)

Course Outcomes: -

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

1. Following this course, students will be able to describe a project life cycle, and can skillfully map each stage in the cycle
2. Students will identify the resources needed for each stage, including involved stakeholders, tools and supplementary materials
3. Students will describe the time needed to successfully complete a project, considering factors such as task dependencies and task lengths
4. Students will be able to provide internal stakeholders with information regarding project costs by considering factors such as estimated cost, variances and profits
5. Students will be able to develop a project scope while considering factors such as customer requirements and internal/external goals



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Syllabus

Module I

Conventional Representation of Machine elements - International Standards (ISD) and Indian Standards (IS), Types of production drawing and cost estimation techniques relevant to mechanical engineering

Module 2

Limits and Fits - IT system of tolerances, deviations and fits, Bill of materials (BOM) and its importance

Module 3

Geometric Dimensioning and Representation - Tolerancing, Tolerancing of form, orientation, location and run-outs, Datums and Datum Systems.

Module 4

Surface texture indication on drawing. Welds - Symbolic representing of drawings.
Preparation of process - Chart for a given component.

Module 5

Cost Estimation of setting time and machining time - estimation of material cost, labour cost and overhead cost based on supplied data. Given a sub-assembly /assembly to prepare production drawings of components as per current drawing office practice. At least ten subassemblies/assemblies are to be completed on A4 sheets.

References

1. Indian Standards : 10714,10715,10716,10717,10719, 813,919,2709,8000 , pt.1 to 4 : 10721, 11158 corresponding to ISO's
2. PSG Design Data Book, PSG Book Depot, 2005.
3. Khan M.Y. & Jain P.K., Cost Management, TMH outline series, 2nd ed., 2000.
4. Engineering Drawing Practice for Schools and Colleges SP: 46- 1988.

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