

Blue Print Reading

Lecture Series for Workforce Institute

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Synopsis

The lecture series will cover various aspects of Blue Print Reading and will be offered as an integrated course that will include lectures, assignments, simple quizzes, and practical experience of explaining the actual drawings. The employer is encouraged to submit engineering drawings to be used in the course. All assignments and hands-on experience on various measuring tools will be provided by IntelliScience.

Each lecture in this series will cover a specific topic. Here is the proposed list of topics that will be covered in this lecture series:

Lecture # 1

Topic: Introduction to Dimensions and System of Units – Unit Conversions
Practical examples solved in the class

Lecture #2

Topic: Measuring Tools: Micrometers and Vernier Calipers
Topic: Difference between accuracy, Precision, and Resolution
Topic: Geometric Tolerances
Practical examples measuring various thicknesses using above tools
Short quiz on Lecture 1

Lecture # 3

Topic: Introduction to line and line patterns: Significance in Engineering Drawings
Topic: Surface finish – types and purpose
Practical Examples discussed in the class
Short quiz on Lecture 2

Lecture # 4

Topic: Introduction of Engineering Drawings
Topic: Sectional views
Practical examples discussed in the class
Short quiz on Lecture 3

Lecture # 5

Topic: Sectional Views of Drawings, Partial Sectional Drawings
Practical examples discussed in the class
Short quiz on Lecture 4

Lectures # 6

Topic: Specifications and Callout for Machine Processes

(Drills, Reamers, Counterbore, Countersink, Surface Texture etc.)

Practical Examples discussed in the class

Short quiz on Lecture 5

Lecture # 7

Topic: Machine Process (Continuation)

Types of holes, Threaded Sections, Chamfers, Welds

Practical examples discussed in the class

Short quiz on Lecture 6

Lecture # 8

Topic: Print Documentation, The Title Block, Bill of Materials, and Drawing Notes

Practical examples discussed in the class

Short quiz on Lecture 7

(Practical examples discussed in the class will include the study of drawings that will be provided by employer)