091 – Basic Manufacturing Skills – Shop Math
Onsite – 1 Day, 6 Hour session – Optimum class size, 12 students

Training Description:

The Basic Manufacturing Skills Module #1, Shop Math, provides the foundational skills for more advanced technical skills training. Shop Math is designed for those who need an update on the basic math skills that are required in areas such as reading and interpreting blueprints or performing math calculations for statistical process control. The course covers basic math concepts and terms, arithmetic operations.

Training Objective:

The objective of each module is to upgrade the skills of the students to help them become more productive in today's ever changing factory. Basic Shop Math is designed for to improve the basic math skills that are required in areas such as reading and interpreting blueprints or performing math calculations for statistical process control. The Shop Math module is designed to attain a basic level of competency in the use of recording data that will allow employees to monitor and validate the production outputs related to the precision parts making process.

Skill Attainment:

Students will be able to understand basic math concepts and terms as well as recognize the symbols that represent them. They will be able to solve basic problems with and without the use of a calculator. Students will be able to compute basic mathematical equations required to perform related tasks on the shop floor.

These skills are transferable within the company, industry and are highly desirable by any manufacturer.

Basic Shop Math Skills

Method of Instruction: Instructor & Projected Presentation

Estimated Instruction Time – 6 hours

Basic Shop Math is designed for those who want to learn the basic math skills that are required in areas such as reading and interpreting blueprints or performing math calculations.

Program Content

Lesson 1:
- Basic Math Concepts and Terms
- Identifying place values of numbers
- Identifying math terms and symbols:
- Equals/ does not equal
- Plus/minus
- Plus or minus
- Multiply/divide
- Square root
- Greater than/greater than or equal to
- Less than/less than or equal to
- Approximately equal to
- Infinity/proportional to/percent

Lesson 2:
- Basic Arithmetic Operations
- Solving subtraction of whole numbers
- Solving multiplication of whole numbers
- Solving division of whole numbers
- Evaluating the order of basic arithmetic operations

Lesson 3:
- Calculator Operations
- Identifying the function of each calculator key
- Solving addition problems
- Solving subtraction problems
- Solving multiplication problems
- Solving division problems
- Solving problems using order of operations
- Solving percentage problems
- Solving square root problems

Lesson 4:
- Averages
- Defining average
- Solving averaging problems

Lesson 5:
- Fractions and Decimals
- Solving problems requiring the addition and subtraction of fractions
- Reducing fractions to lowest terms
- Converting fractions to decimals and decimals to fractions
- Calculating percentages

Lesson 4:
- Averages
- Defining average
- Solving averaging problems

Lesson 5:
- Fractions and Decimals
- Solving problems requiring the addition and subtraction of fractions
- Reducing fractions to lowest terms
- Converting fractions to decimals and decimals to fractions
- Calculating percentages