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| Course: | TECHNICAL TRAINING APPRECIATION |
| Short name: | TTA |
| Length: | 8 hrs |
| Prerequisites: | None |

Purpose

This course is designed to provide an appreciation of the base courses taught at the Technical Training Center. It will demonstrate the importance of setting new job expectations and the need for on-the-job training utilizing the newly acquired skills. Supervisors, trainers and managers who are responsible for technical employees will benefit greatly from this course.

Description

This course is an overview of the knowledge and skills taught on the Electrical, Electronic, PLC, Mechanical, Pneumatic and Hydraulic courses. This overview will show the rigor of the training and the importance of implementing on-the-job training.

Topics include:

- ES1
- ES2
- Mech 1
- Mech 2
- PLC-I
- PLC 5
- ED1
- Pneu
- Hyd
- Training reports
- CenTec course catalog

Course Objectives:

This course is designed to provide knowledge of all the basic core courses taught at CenTec.

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| Course name: | PLC APPRECIATION |
| Short name: | PLC App |
| Length: | 16 hrs |
| Prerequisites: | None |

Purpose

This course is designed to provide trainees with an appreciation of PLC technologies.

Description

This course provides an introduction to PLC ladder logic, basic instructions and demonstrations of concepts.

Topics include:

- PLC basics & concepts

Course Objectives:

Upon the successful completion of this course, the trainee will have an appreciation for:

- PLC basics & concepts to allow discussion with technical employees.
- Recognizing hardware components when seen in the field.
- The function and application of PLC's.

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| Course name: | ELECTRICAL APPRECIATION |
| Short name: | EA |
| Length: | 24 hrs |
| Prerequisites: | None |

Purpose

This course will provide an appreciation of the electrical technologies.

Description

This course is an introduction to electrical theory and equipment, electrical safety, schematic reading, troubleshooting exercises. A variety of technologies will be covered.

Topics include:

- The nature of electricity
- 3-Phase systems
- Electrical language and symbols
- Drawings
- Electrical components & protection devices
- Basic circuit design
- DC fundamentals
- DC motors
- Ohm's Law
- AC motors
- Kirchoff's Law
- Electrical safety & lockout
- AC fundamentals
- Electrical troubleshooting
- Transformers

Course Objective:

This course is designed to provide trainees with an appreciation of the following basic electrical concepts:

- The hazards associated with electrical circuits.
- AC and DC circuit concepts.
- Proper application concerning electrical protection devices.
- Electrical symbols.
- Wiring methods and practical application.
- Practical AC and DC motor theory.

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| Course name: | MECHANICAL APPRECIATION |
| Short name: | MA |
| Length: | 40 – 80 hrs. (Dependent on topics chosen) |
| Prerequisites: | None |

Purpose

This course is:

- a) Designed to provide employees (electrical designers, technicians and supervisors) who do not have a mechanical background, with an overview of the mechanical technologies.
- b) Designed to provide operators with a basic introduction to mechanical technologies and to enable them to perform designated tasks.

Description

This course provides basic instructions with some practical demonstration of mechanical theory, hand tools, practical skills, mechanical drawings, safety, machining, and measurement.

This course can be tailored to suit a) or b) using the topics listed below. An advanced notice is required in order to tailor to suit the need. The timeframe for the course will vary according to the request.

Topics include:

- Mechanical print reading
- Drive systems
- Hand tool technique and safety
- Seals
- Fasteners
- Assembly and disassembly practices
- Measurement & layout
- Couplings, clutches and brakes
- Hand skills
- Lubrication
- Drilling technique and quality
- Conveyor systems
- Bearing technology
- Machine tool function and use
- Rigging requirements and safety
- Coupling alignment
- Oxygen and acetylene safety
- Materials and heat treatment

Course Objectives:

Upon the successful completion of courses selected, the trainee will have an appreciation for:

- The basics of these topics and appreciating what skills are required to perform these topics.
- Communicating with maintenance, personnel, and assisting with minor aspects of these topics.