



ESTC ACADEMY

COURSE OUTLINE WELDING SAFETY

Module One: ACCIDENTS

Time Allocation: 60 Mins

Module terminal objectives: -

Upon completion of the module, the participants will:

- Know the type of accidents and statistics related to welding
- Know the control measures to be taken to prevent welding accidents

Module Enabling Objective(s):

Upon completion of the module, the participants will:

- Demonstrate understanding of accident control measures by successfully passing a short written test with a score of 100%.

Delivery Methods:

Lecture Format

Topics:

Welding Accidents
Control measures

ESTC ACADEMY



ESTC ACADEMY

COURSE OUTLINE WELDING SAFETY

Module Two: COMPANY PROCEDURES AND LEGISLATION

Time Allocation: 30 Mins

Module terminal objectives: -

Upon completion of the module, the participants will:

- Know the local legislation requirements
- Know the company procedures
- Understand the safe work procedure / J.S.A
- Know the correct P.P.E. used for welding operation

Module Enabling Objective(s):

Upon completion of the module, the participants will:

- Demonstrate understanding of Company procedures by successfully passing a short written test with a score of 80 %.

Delivery Methods:

Lecture Format

Topics:

Legislation

Company procedures

Safe work procedure

P.P.E.

ESTC ACADEMY



ESTC ACADEMY

COURSE OUTLINE WELDING SAFETY

Module Three: WELDERS RESPONSIBILITIES

Time Allocation: 30 Mins

Module terminal objectives: -

Upon completion of the module, the participants will:

- Know how to maintain high quality work
- Know how to prevent weld defects
- Know the safety precaution during welding

Module Enabling Objective(s):

Upon completion of the module, the participants will:

- Demonstrate understanding of safety precaution to be taken during welding by successfully passing a short written test with a score of 100%.

Delivery Methods:

Lecture Format

Topics:

Maintain high quality work

Prevent weld defects

Safety precaution during welding

ESTC ACADEMY



ESTC ACADEMY

COURSE OUTLINE WELDING SAFETY

Module Four: WELDING EQUIPMENT AND CONSUMABLES

Time Allocation: 30 Mins

Module terminal objectives: -

Upon completion of the module, the participants will:

- Know the types of welding equipment and consumables used on board
- Know how to carry out visual checks on equipments and tools

Module Enabling Objective(s):

Upon completion of the module, the participants will:

- Demonstrate understanding of visual checks on equipments and tools by successfully passing a short written test with a score of 80%.

Delivery Methods:

Lecture Format

Topics:

Types of welding equipment and consumables

Visual checks

ESTC ACADEMY



ESTC ACADEMY

COURSE OUTLINE WELDING SAFETY

Module Five: HOUSEKEEPING

Time Allocation: 30 Mins

Module terminal objectives: -

Upon completion of the module, the participants will:

- Know what is housekeeping
- Know the importance of housekeeping

Module Enabling Objective(s):

Upon completion of the module, the participants will:

- Demonstrate understanding of housekeeping by successfully passing a short written test with a score of 80 %.

Delivery Methods:

Lecture Format

Topics:

Housekeeping

ESTC ACADEMY



ESTC ACADEMY

COURSE OUTLINE WELDING SAFETY

Module Six: COMMUNICATION

Time Allocation: 45 mins

Module terminal objectives: -

Upon completion of the module, the participants will:

- Know what is toolbox talk
- Know what is pre-shift meeting
- Know what is permit to work system

Module Enabling Objective(s):

Upon completion of the module, the participants will:

- Demonstrate understanding of toolbox talk and pre-shift meeting by successfully passing a short written test with a score of 80 %.

Delivery Methods:

Lecture Format

Topics:

Toolbox talk

Pre-shift meeting

Permit to work

ESTC ACADEMY



ESTC ACADEMY

COURSE OUTLINE WELDING SAFETY

Module Seven: HAZARD IDENTIFICATION

Time Allocation: 60 Mins

Module terminal objectives: -

Upon completion of the module, the participants will:

- Know the types of hazards in welding
- Know the effect to human body

Module Enabling Objective(s):

Upon completion of the module, the participants will:

- Demonstrate understanding of the types of hazards by successfully passing a short written test with a score of 80 %.

Delivery Methods:

Lecture Format

Topics:

Types of hazards in welding
Effects to human body

ESTC ACADEMY



ESTC ACADEMY

COURSE OUTLINE WELDING SAFETY

Module Eight: UNSAFE ACT AND UNSAFE CONDITION

Time Allocation: 60 Mins

Module terminal objectives: -

Upon completion of the module, the participants will:

- Know what is unsafe acts unsafe conditions
- Know how to carry out safety inspection
- Know the Do's and Don'ts in welding operation

Module Enabling Objective(s):

Upon completion of the module, the participants will:

- Demonstrate understanding of unsafe acts and unsafe conditions by successfully passing a short written test with a score of 80 %.

Delivery Methods:

Lecture Format

Topics:

Unsafe acts unsafe conditions

Do's and Don'ts in welding operation

Safety inspection

ESTC ACADEMY



ESTC ACADEMY

COURSE OUTLINE WELDING SAFETY

Module Nine: PRACTICAL UNSAFE ACT AND UNSAFE CONDITION

Time Allocation: 150 Mins

Module terminal objectives: -

Upon completion of the module, the participants will:

- Be able to carryout safety inspection (unsafe act / condition)

Module Enabling Objective(s):

Upon completion of the module, the participants will:

- Be able to carry out practical unsafe acts and unsafe conditions inspection by successfully passing a short written test with a score of 80 %.

Delivery Methods:

Lecture Format

Topics:

Practical safety inspection (Unsafe acts unsafe conditions)

ESTC ACADEMY