



ESTC ACADEMY

CURRICULAR OUTLINE

BASIC RIGGING & SLINGING

Module One: Introduction

Time Allocation: 15 Mins

Module terminal objectives:

Upon completion of the module, the participants should be able to:

- Understand training centre's emergency plan and procedures (Knowledge)
- Demonstrate personal safety and occupational health awareness throughout the whole duration of the Course (Knowledge)
- Comply with training centre's rules of personal and professional behaviour (Knowledge)

Module Enabling Objective(s):

Upon completion of the module, the participants should be able to:

- Understand training centre's emergency plan and procedures by successfully passing a short written test with a score of 100%.

Delivery Methods:

- Lecture Format

Topics:

No Titles

1. Emergency Procedures
2. Personal safety & occupational health awareness
3. Personal rules & professional behaviour

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Module Two: Safety Culture

Time Allocation: 45 Mins

Module Terminal Objectives:

Upon completion of the module, the participants should be able to:

- Understand the importance of safety culture in accident prevention (knowledge)
- Understand the importance of safety in the oil & gas industry (knowledge)
- Understand the importance of safety at the worksite (knowledge)
- Understand company's HSE House Rules (knowledge)

Module Enabling Objective(s):

Upon completion of the module, the participants should be able to:

- Know the importance of safety culture in accident preventing at the workplace by successfully passing a short written test with a score of 100%.

Delivery Methods:

- Lecture Format

Topics:

No Titles

1. Why safety culture is important in accident prevention?
2. Safety in oil and gas industry
3. Worksite safety
4. HSE house rules



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Module Three: Legal Requirement on Lifting

Time Allocation: 30 Mins

Module Terminal Objectives:

Upon completion of the module, the participants should be able to:

- Understand the relevant registration, standards and guidelines for lifting operation (knowledge)

Module Enabling Objective(s):

Upon completion of the module, the participants should be able to:

- Understand the relevant registration, standards and guidelines for lifting operation by successfully passing a short written test with a minimum score of 80%.

Delivery Methods:

- Lecture Format

Topics:

No	Titles
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|----|---------------------------|
| 1. | LOLER |
| 2. | PUWER |
| 3. | Personal responsibilities |

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Module Four: Safe Systems of Work

Time Allocation: 45 Mins

Module Terminal Objectives:

Upon completion of the module, the participants should be able to:

- Understand the 10 questionnaire for a safe lifting
- Understand the need of lifting permit (knowledge)
- Understand the risk assessment (knowledge)
- Demonstrate toolbox talk (skill)
- Understand the important of housekeeping (knowledge)

Module Enabling Objective(s):

Upon completion of the module, the participants should be able to:

- Understand the safety system of work by successfully passing a short written test with a minimum score of 80%.

Delivery Methods:

- Lecture Format
- Classroom activity

Topics:

No Titles

1. Lifting permit
2. Risk assessment
3. Toolbox talk
4. Housekeeping
5. 10 questions for a safe lifting

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Module Five: Planning of Lifting Operation

Time Allocation: 30 Mins

Module Terminal Objectives:

Upon completion of the module, the participants should be able to:

- Understand the planning method (knowledge)
- Understand the preparation method (knowledge)
- Understand the execution method (knowledge)
- Understand the stop work policy (knowledge)

Module Enabling Objective(s):

Upon completion of the module, the participants should be able to:

- Know the planning procedure for lifting by successfully passing a short written test with a minimum score of 80%.

Delivery Methods:

- Lecture Format
- Classroom activity

Topics:

No Titles

1. Planning method
2. Preparation method
3. Execution method
4. Stop work policy

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Module Six: Introduction of Lifting Appliances/Categorisation

Time Allocation: 135 Mins

Module Terminal Objectives:

Upon completion of the module, the participants should be able to:

- Identify and select different types of lifting appliances (knowledge / skill)
- Carry out pre and post use inspection, including certification of equipment (knowledge / skill)
- Use lifting appliances correctly and safely (skill)
- Know what the equipments under lifting appliances are.
- Know what the equipments under lifting tackles are.
- Know what the equipment under lifted equipments is.

Module Enabling Objective(s):

Upon completion of the module, the participants should be able to:

- Identify, carry out inspection and use lifting appliance correctly by successfully passing a short written test with a minimum score of 80%.

Delivery Methods:

- Lecture Format
- Classroom activity

Topics:

No Titles

1. Wire rope
2. Shackle
3. Webbing sling
4. Container
5. Chain block, lever hoist, tirlor
6. Hook
7. Eyebolts
8. Snatch block

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Module Seven: Rigging Principle & Terminology

Time Allocation: 45 Mins

Module Terminal Objectives:

Upon completion of the module, the participants should be able to:

- Identify angles and tension in slings (knowledge)
- Identify and estimate the weight of loads (knowledge)
- Identify the centre of balance (knowledge)

Module Enabling Objective(s):

Upon completion of the module, the participants should be able to:

- Identify angles, tension, centre of balance and weight of loads by successfully passing a short written test with a minimum score of 80%.

Delivery Methods:

- Lecture Format
- Classroom activity

Topics:

No Titles

1. Sling angle
2. Tension in sling
3. Weight of load
4. Centre of balance

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Module Eight: Communication

Time Allocation: 30 Mins

Module Terminal Objectives:

Upon completion of the module, the participants should be able to:

- Understand roles of banksman (knowledge)
- Demonstrate the correct hand signals according to the API/BS standards. (skill)
- Use walkie-talkie correctly.(skill)

Module Enabling Objective(s):

Upon completion of the module, the participants should be able to:

- Describe the roles of banksman, correct use of walkie-talkie and hand signals by successfully passing a short written test with a minimum score of 80%.

Delivery Methods:

- Lecture Format
- Classroom activity

Topics:

No Titles

1. Roles of banksman
2. Hand Signals
3. Use of walkie-talkie

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Module Nine: Awareness of Lifting Operation

Time Allocation: 30 Mins

Module Terminal Objectives:

Upon completion of the module, the participants should be able to:

- Identify the crane operating principles (knowledge)
- Identify the conflicting activity (knowledge)
- Understand the environmental factors (knowledge)
- Understand the dynamic factors in offshore lifting operation (knowledge)
- Understand the manual handling (knowledge)

Module Enabling Objective(s):

Upon completion of the module, the participants should be able to:

- Identify the crane operating principles, conflicting activity, environment factors and understand manual handling by successfully passing a short written test with a minimum score of 80%.

Delivery Methods:

- Lecture Format
- Classroom activity

Topics:

No Titles

1. Awareness of crane operating principles
2. Awareness of conflicting activities
3. Environmental factors
4. Dynamic factors of lifting operation
5. Awareness of manual handling



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Module Ten: Rope Tying

Time Allocation: 45 Mins

Module Terminal Objectives:

Upon completion of the module, participant should be able to:

- Demonstrate the tying of knots, correctly (skill)

Module Enabling Objective(s)

The module enable the delegate to be knowledgeable in tying a knot during lifting activity at worksite, according to standard procedure.

Delivery Methods

- Lecture format
- Classroom activity

Topics:

No Titles

1. Bowline
2. Clove hitch
3. Reef knots
4. Sheet bend
5. Bowline on the bight

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Module Eleven: Inspection of Lifting Appliances

Time Allocation: 45 Mins

Module Terminal Objectives:

Upon completion of the module, the participants should be able to:

- Carry out the inspection based on the check list provided (knowledge)

Module Enabling Objective(s):

Upon completion of the module, the participants should be able to:

- Identify the defects of lifting appliances.

Delivery Methods:

- Practical demonstration

Topics:

No Titles

1. Slings
2. Shackles
3. Webbing sling

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Module Twelve: Practical Exercises

Time Allocation: 405 Mins

Module Terminal Objectives:

Upon completion of the module, the participants should be able to:

- Carry out inspection for lifting equipment correctly. (skill)
- Plan and prepare for lifting operation. (skill)
- Carry out risk assessment for lifting operation (knowledge)
- Select lifting equipment correctly. (skill)
- Attach lifting equipment correctly. (skill)
- Demonstrate transferring load safely (skill)
- Identify offset and centre of balance during lifting. (skill)
- Lift load from restricted access / confined space correctly and safely (skill)
- Use the hand signals and walkie-talkie correctly. (skill)
- Demonstrate stacking a load onto another load
- Demonstrate lifting a load using a chain block correctly.
- Demonstrate safe lifting of a large load.

Module Enabling Objective(s):

Upon completion of the module, the participants should be able to:

- Demonstrate the inspection, planning and preparation, risk assessment, correct rigging and lifting techniques, correct hand signals and communication with walkie-talkie by passing all the practical assessments.

Delivery Methods:

- Practical Exercise

Topics:

No **Titles**

1. Inspection
2. Planning and preparation
3. Risk assessment
4. Slings methods
5. Hand signals & use of walkie-talkie

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