



ESTC ACADEMY

COURSE OUTLINE

Module One: Introduction

Time Allocation: 60 Mins

Module terminal objectives: -

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

- Describe adverse impacts of incident and terminologies used in incident investigation. (knowledge)
- Explain Malaysia statutory requirement pertaining to incident notification, investigation and reporting. (knowledge)
- Differentiate the significant differences between incident & accident via bowtie diagram. (knowledge)
- Explain accident causation models – Swiss cheese model and tripod causation path. (knowledge)

Module Enabling Objective(s):

Upon completion of the module, the participants:

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

Delivery Methods:

Lecture format and group discussion

Topics:

- Overview of incident investigation
- Legal requirements
- Bowtie diagram
- Accident causation model

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Module Two: The Principal of Investigation

Time Allocation: 60 Mins

Module Terminal Objectives:-

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

- List the essential steps in investigation process (knowledge)
- Explain the importance of investigative plan (knowledge)
- Explain the significance of chronology of event and potential failed control in investigative plan (knowledge)

Module Enabling Objective(s):

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

- Understand the principles applied in incident investigation by successfully passing a short written test with a score of 80%.

Delivery Methods:

Lecture format / group discussion

Topics:

- Investigation process
- The investigative plan
- Gathering and evaluating evident
- Common problems



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Module Three: The Evidence

Time Allocation: 90 Mins

Module Terminal Objectives: -

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

- Understand and explain the importance and significance of evidences in various forms (knowledge)
- Describe necessary means to ensure the integrity of evidence (knowledge)

Module Enabling Objective(s):

Upon completion of the module, the participant will:

- Appreciate the importance and significance of various evidences thus is able to apply proper evidence management techniques to ensure evidences' integrity by successfully passing a short written test with a score of 80%.

Delivery Methods:

Lecture Format / Classroom activity

Topics:

- Definition
- Types of evidence
- Physical evidence analysis
- Quality of evidence
- Categories of evidence
- Records
- Chain of custody
- Photographic evidence
- Sources of evidence
- Evidence Management



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Module Four: Interviewing Witnesses

Time Allocation: 180 Mins

Module Terminal Objectives: -

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

- Understand and explain the principles and basic requirement of interviewing witness (knowledge)
- Carry out interview to obtain facts (skill)

Module Enabling Objective(s):

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

- Carry out interview in an effective manner by successfully demonstrating his / her interviewing skill in role play.
- Understand the principles and basic requirement of interviewing witness by successfully passing a short written test with a score of 80%.

Delivery Methods:

Lecture format / role play

Topics:

- Introduction
- Sequence of interview
- Preparation of interview
- Conducting interview

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Module Five: Human Behaviour in Accident

Time Allocation: 90 Mins

Module Terminal Objectives: -

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

- Understand various types of human errors and their association with accident (knowledge)
- Explain motivators that drive human to violate existing procedures thus be able to apply suitable remedies under different circumstances (knowledge)

Module Enabling Objective(s):

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

- Understand the nature of human behaviour in accident causation thus be able to apply proper remedial measures under given circumstances by successfully passing a short written test with a score of 80%.

Delivery Methods:

Lecture format and group discussion

Topics:

- Introduction
- Human errors
- Why is violation so dangerous?
- Managing rules breaking

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Module Six: Causal Analysis

Time Allocation: 315 mins

Module Terminal Objectives: -

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

- Explain basic concept of HET triangle and tripod beta methodology (knowledge)
- Construct core diagram of HET for a given scenario and identify relevant failed barriers (competency)
- Identify and analyze active failures, preconditions and latent failures of each failed barrier by using “caused by – lead to” table (competency)
- Explain the important and significance of 11 general failure types (GFT) in causal analysis (knowledge)
- Recommend remedial measures in accordance with the type and significance of the failure (competency)

Module Enabling Objective(s):

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

- Understand concept of tripod beta by successfully passing a short written test with a score of 80%.
- Construct core diagram and identify relevant failed controls, active failures, preconditions and latent failures by successfully complete scenario exercises given.

Delivery Methods:

Lecture format / Scenario-base exercise

Topics:

- Introduction to tripod beta
- Chained events
- Identify causes of incident
- Recommendations

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Module Seven: Incident Reporting and Follow Up

Time Allocation: 40 mins

Module Terminal Objectives: -

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

- Describe incident follow up procedures and investigation team composition in accordance with potential severity of the incident (knowledge)
- Appreciate the functions of Fountain Impact system for incident tracking and follow up purposes (knowledge)

Module Enabling Objective(s):

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

- Understand concept of incident tracking and follow up system by successfully passing a short written test with a score of 80%.

Delivery Methods:

Lecture format

Topics:

- COMPANY follow-up procedure
- COMPANY investigation team composition
- Fountain



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Module Eight: Practical

Time Allocation: 465 mins

Module Terminal Objectives: -

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

- Carry out facts finding, causal analysis and preparation of report (skill)

Module Enabling Objective(s):

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

- Carry out facts finding, causal analysis and preparation of report after successfully complete tasks given in practical

Delivery Methods:

Syndicate exercise – mocked accident site prepared by Trainer/Instructor

Topics:

- Practical

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