

# Incident Investigation and Analysis

## Module Information

2022.01, Approved

### Summary Information

Module Code	7087RTC
Formal Module Title	Incident Investigation and Analysis
Owning School	Engineering
Career	Postgraduate Taught
Credits	10
Academic level	FHEQ Level 7
Grading Schema	50

### Teaching Responsibility

LJMU Schools involved in Delivery
Engineering

### Learning Methods

Learning Method Type	Hours
Lecture	8
Online	1
Tutorial	8

### Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-PAR	PAR	January	12 Weeks

### Aims and Outcomes

Aims	To give students an awareness and understanding of incident investigation and analysis.
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**After completing the module the student should be able to:**

**Learning Outcomes**

Code	Number	Description
MLO1	1	Demonstrate a thorough grounding in the underlying theories behind accident cause analysis
MLO2	2	Apply the investigation and analysis process to determine the sequence of events and the causes of an incident
MLO3	3	Critically analyse published incident and accident reports including the recommendations

**Module Content**

Outline Syllabus	Introduction-Why we investigate accidents -The incident investigation process-Accident cause investigation theory Immediate actions in the event of an accident -Emergency response / make the area safe-Secure the scene / preserve the evidence-Information managementPlanning the investigation-How to determine the extent of the investigation and set Terms of Reference-Appointing the investigation team – roles, responsibilities-Planning the investigation team activitiesCollecting Data-Types of data / information available-Interviews and witness statements-Human FactorsData organisation / analysis-Defining what happened (the timeline)-Identifying why things happened (the analysis)-Understanding immediate, underlying and root causesCorrective Actions-Address each cause -Failed barriers before restart-Interim recommendationsConcluding the analysis-Recommendations and Actions-Reporting your findings
Module Overview	
Additional Information	The main aim of this module is to give students an awareness and understanding of incident investigation and analysis. This includes looking at why we need to investigate incidents. The stages of incident investigation are discussed, such as: immediate actions in the event of an accident, planning the investigation, collecting data, data organisation and analysis and concluding the analysis. The taught part of the module involves a significant amount of practical exercises (tutorials). Assessment is in the form of an essay combined with activities (e.g. exercises, discussions, etc.). The module is delivered via distance learning, described as follows: Lecture (using slides and slide notes): Online self-study Tutorial/Activities (Exercises and reviews): Online activities with teacher feedback, and virtual classrooms Tutor-supported Online: Tutor feedback for activities, virtual classrooms and email support. In this module, the knowledge learning outcomes are K1, K2, the skills learning outcomes are S1, S2, S5 and the behaviours learning outcomes are B1, B2, B3 and B4.

**Assessments**

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Essay	Essay	95	0	MLO1, MLO3
Test	Test	5	0	MLO2

**Module Contacts**

**Module Leader**

Contact Name	Applies to all offerings	Offerings
Ben Matellini	Yes	N/A

**Partner Module Team**

Contact Name	Applies to all offerings	Offerings
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