

## Liverpool John Moores University

Title: Accident Investigation and Analysis  
Status: Definitive  
Code: **7526RSKDL** (118786)  
Version Start Date: 01-08-2016

Owning School/Faculty: Maritime and Mechanical Engineering  
Teaching School/Faculty: Maritime and Mechanical Engineering

Team	Leader
Zaili Yang	Y

**Academic Level:** FHEQ7  
**Credit Value:** 10  
**Total Delivered Hours:** 16.5  
**Total Learning Hours:** 100  
**Private Study:** 83.5

### Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	8
Online	.5
Tutorial	8

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	Essay		70	
Report	Rpt		25	
Reflection	Test&refl		5	

### Aims

*To give students an awareness and understanding of accident investigation and analysis.*

### Learning Outcomes

After completing the module the student should be able to:

- 1 Critically review the advantages and disadvantages of carrying out accident investigation and analysis
- 2 Demonstrate a thorough grounding in the underlying theories behind accident cause analysis
- 3 Generate an incident report
- 4 Critique published incident and accident reports including the recommendations

### **Learning Outcomes of Assessments**

The assessment item list is assessed via the learning outcomes listed:

Essay	2	4
Report	3	
Online test & Reflection	1	

### **Outline Syllabus**

- An understanding of why we investigate accidents*
- An overview of the accident investigation process*
- An introduction to accident cause investigation theory and the concept of immediate, underlying and root causes*
- Immediate actions in the event of an accident*
- Emergency response / make the area safe*
- Secure the scene / preserve the evidence*
- Information management*
- Planning 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 activities*
- Collecting Data*
- Types of data / information available*
- Interviews and witness statements*
- Human Factors*
- Data organisation / analysis*
- Defining what happened (the timeline)*
- Identifying why things happened (the analysis)*
- Understanding immediate, underlying and root causes*
- Concluding the analysis*
- Recommendations and Actions*
- Reporting your findings*
- Module conclusions and close out*

## **Learning Activities**

A combination of slides and notes, exercises, discussions, interactive web activities and supported self study.

## **Notes**

The main aim of this module is to give students an awareness and understanding of accident investigation and analysis. This includes looking at why we need to investigate accidents.

The stages of accident 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 assessment for this module is a combination of an essay, a technical report and online activities (e.g. tests, discussions, etc.).