

Liverpool John Moores University

Title: Oil and Gas and Process Industry Risk Studies
Status: Definitive
Code: **7562RTC** (120395)
Version Start Date: 01-08-2019

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

Team	Leader
Alan Wall	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: Semester 1

Component	Contact Hours
Lecture	8
Online	.5
Tutorial	8

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	An essay question comprising several component parts, based around a case study, up to 4,000 words long.	95	
Test	AS2	Individual and group activities e. g. quiz, forum	5	

Aims

To provide an understanding of the various types of specialist risk study which may be carried out for an oil & gas or process industry facility or operation.

Learning Outcomes

After completing the module the student should be able to:

- 1 Critically review the use of specialist risk studies in the Oil, Gas and Process industries
- 2 Be capable of interpreting the legislative and regulatory requirements behind the use of specialist risk studies in the Oil, Gas and Process industries
- 3 Apply specialist risk studies to simple process industry operations to analyse the risks to personnel, the asset and/or the environment
- 4 Illustrate application of a specialist risk study, evaluation of the results and key conclusions.

Learning Outcomes of Assessments

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

4000 word essay	1	2	3	4
Individual and group work	3	4		

Outline Syllabus

Introduction to Oil, Gas and Process industry risk assessment
Risk measures & criteria
Oil & gas / process industry safety and risk studies
Escape, Evacuation and Rescue Analysis (EERA)
TR Impairment Assessment (TRIA)
Occupied Building Risk Assessment (OBRA)
Dropped Object Analysis
Emergency Systems Survivability Analysis (ESSA)
Occupational (Workplace) Risk Assessment
Health Risk Assessment (HRA)
Bibliography, sources of further study and common abbreviations
Module conclusions and close out

Learning Activities

A combination of lectures, exercises and supported self study.

Notes

The purpose of this module is to provide an understanding of the various types of specialist risk study which may be carried out for an oil & gas or process industry facility or operation. This involves an introduction to oil and gas industry risk assessment, a summary of QRA (which is covered in more detail in a separate module) and a review of specialist risk studies such as Escape, Evacuation and

Rescue Analysis (EERA), TR Impairment Assessment (TRIA), Occupied Building Risk Assessment (OBRA), Emergency Systems Survivability Analysis (ESSA) and Health Risk Assessment (HRA).

The following module is recommended for prior study:
Oil and Gas and Process Industry Quantitative Risk Assessment (QRA)

Assessment is in the form of an essay combined with activities (e.g. exercises, discussions, etc.). The delivery modes for the module elements are explained below.

Lecture (using slides and notes): will be delivered by classroom based teacher (face to face) or online self-study (distance learning) or mixture of the two (blended learning).

Tutorial/Activities (exercises and reviews): will be delivered by classroom based teacher (face to face) or online activities with teacher feedback/virtual classroom (distance learning) or mixture of the two (blended learning).

Tutor supported online: will be delivered by email support prior to assessment submission (face to face) or tutor feedback activities, virtual classrooms and email support (distance learning) or mixture of the two (blended learning).