Oil and Gas and Process Industry Risk Studies

Module Information

2022.01, Approved

Summary Information

Module Code	7590RTC
Formal Module Title	Oil and Gas and Process Industry Risk Studies
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
SEP-PAR	PAR	September	12 Weeks

Aims and Outcomes

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

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Critically review the use of specialist risk studies in the Oil, Gas and Process industries
MLO2	2	Apply specialist risk studies to simple Oil, Gas and Process industry operations to analyse the risks to personnel
MLO3	3	Compare study results with criteria and use to devise and evaluate potential risk reduction measures

Module Content

Outline Syllabus	Outline Syllabus: • Intro to module• Intro to Risk Studies• Fire Risk Assessment• Explosion Risk Assessment• Smoke and Gas Dispersion• Flare & Vent Radiation and Dispersion• Escape, Evacuation and Rescue Analysis • TR Ingress and Impairment Study• Occupied Building Risk Assessment (OBRA)• Emergency Systems Survivability Assessment• Dropped Object• Ship Collision• Transport Risk • Conclusions and close out
Module Overview	
Additional Information	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 studies (including QRA which is covered in more detail in a separate module), and the opportunity to conduct specialist risk studies such as Escape, Evacuation and Rescue Analysis (EERA), TR Impairment (TRI) Studies, Emergency Systems Survivability Analysis (ESSA) , Dropped Object Analysis, etc. for simple example facilities.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-studyTutorial/Activities (Exercises and reviews): Online activities with teacher feedback, and virtual classrooms Tutor-supported Online: Tutor feedback for activities, virtual classrooms and email support

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