Liverpool John Moores University

Title:	Rail Industry Hazards and Risks
Status:	Definitive
Code:	**7568RTC** (120401)
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 overview of rail industry infrastructure, operations and activities and the typical hazards associated with this industry.

To provide an understanding of the role of risk management through the rail project lifecycle.

Learning Outcomes

After completing the module the student should be able to:

1   Apply knowledge of the principal types of infrastructure, operations and activities which exist within the rail industry
2   Evaluate typical rail industry project phases and hazard sources
3   Interpret the standard means of avoiding or mitigating those hazards.

Learning Outcomes of Assessments

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

4000 word essay   1   2

Individual and group work   3

Outline Syllabus

Rail industry sources of risk
Collisions between trains
Collisions of trains with objects
Derailment
Fires
Explosion
Flood
Slips, trips, falls
Hit by train
Electricity
Structural
Road Traffic Accidents
Level Crossing
Construction
Regulatory regimes

Why include risk management within a rail industry project?
Typical phases of a project and opportunities for risk reduction Overview of Risk Assessment Tools and Techniques (more detail in Hazard Identification and Hazard Assessment modules)
Risk management objectives and methods for each project phase

Learning Activities

A combination of lectures, exercises and supported self study.

Notes

The purpose of this module is to provide an overview of rail industry infrastructure, operations and activities and the typical hazards associated with this industry.

The module aims to provide an understanding of the role of risk management through the rail project lifecycle.

This involves studying the different sources of risk in the rail industry, the regulatory regimes of the industry, the typical phases of a project and opportunities for risk reduction within each of the phases and the final acceptance into service

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).