Bowtie Risk Management

Module Information

2022.01, Approved

Summary Information

Module Code	7078RTC
Formal Module Title	Bowtie Risk Management
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 in-depth analysis of how bowtie analysis can be used to manage risk. To critically review its practical uses and benefits, with hands-on practice at using the technique.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Analyse hazard scenarios by applying the bowtie method and designing a bowtie diagram
MLO2	2	Develop integrity assurance for bowtie barriers
MLO3	3	Devise risk acceptance criteria for hazards in bowties.

Module Content

Outline Syllabus	Introduction to risk assessment and bowtiesThe bowtie method – what is a bowtie and how to build oneAssuring barrier integrityEffectiveness and ALARP for bowtiesPractical uses of bowtiesFacilitating bowtie workshopsBowtie software tools
Module Overview	
Additional Information	This module introduces bow-tie methodology and examines in detail the various bowtie analysis components. The module also provides a critical review of the method's practical uses, with hands-on practice at applying the technique. Assessment is in the form of an essay combined with activities (e.g. exercises, discussions, etc.).The module is delivered using a mixture of face-to-face and online learning, described as follows:Lecture (using slides and slide notes): face-to-face workshop sessionsTutorial/Activities (Exercises and reviews): Online activities with teacher feedback, and virtual classroomsTutor-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, MLO2
Test	Test	5	0	MLO3

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