

## Risk Reduction and ALARP

### Module Information

2022.01, Approved

#### Summary Information

Module Code	7595RTC
Formal Module Title	Risk Reduction and ALARP
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
APR-PAR	PAR	April	12 Weeks

#### Aims and Outcomes

Aims	To enable students to assess the driving forces behind different options available for risk reduction and to apply the ALARP concept to evaluating the practicability of additional risk reduction measures.
------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**After completing the module the student should be able to:**

**Learning Outcomes**

Code	Number	Description
MLO1	1	Identify different options available for risk reduction.
MLO2	2	Decide when risk reduction measures can best be used.
MLO3	3	Describe the concepts of "tolerability of risk" and "As Low As Reasonably Practicable (ALARP)"
MLO4	4	Apply the ALARP concept and conduct an ALARP assessment to an appropriate level of detail.

**Module Content**

Outline Syllabus	Risk Management Summary Hierarchy of Risk Reduction Measures Risk Reduction Through the Lifecycle ALARP Concept Demonstrating ALARP Qualitative and Semi-Quantitative Approaches Cost Benefit Analysis Societal Risk
Module Overview	
Additional Information	<p>The purpose of this module is to enable students to understand the hierarchy of risk reduction measures and the options for risk reduction in the project lifecycle. Students will be introduced to the concept of ALARP, practise applying it and learn how to demonstrate that risk is reduced to ALARP levels. 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:</p> <p>Lecture (using slides and slide notes): Online self-study Tutorial/Activities (Exercises and reviews): Online activities with teacher feedback, and virtual classrooms Tutor-supported Online: Tutor feedback for activities, virtual classrooms and email support.</p> <p>Relevant subject benchmark statement(s) and other external reference points used to inform programme outcomes:</p> <p>The QAA does not currently offer any SBS for risk and safety management. The Engineering (MEng) benchmark statements do not address risk. The Risktec teachers and module leader are practising industry consultants, imparting knowledge which is both relevant and up-to-date, and incorporating that knowledge into the module materials. The programme captures the industry-wide requirements of national and international standards for best practices in risk and safety management captured in guidance issued by regulatory authorities such as the UK Health and Safety Executive, Australian National Offshore Petroleum Safety and Environmental Management Authority, UK Office of Rail Regulation.</p> <p>Mode and duration of study: Distance Learning for 8 weeks. Criteria for admission to the programme: Students must meet at least one of the following criteria:</p> <ul style="list-style-type: none"> <li>• An undergraduate degree or equivalent in science, engineering, business management, or related studies, or</li> <li>• Be an industry professional with 5+ years industry experience, with some exposure to risk management tools and techniques, or</li> <li>• Be a mature student with qualifications and experience who in the opinion of the programme team will be able to successfully complete the programme, or</li> <li>• An appropriate combination of undergraduate degree (or academic equivalent) and industry experience at the discretion of the Programme Leader.</li> </ul> <p>The entry criterion for English language ability is possession of one of the following qualifications:</p> <ul style="list-style-type: none"> <li>• IELTS 6.5, or</li> <li>• TOEFL 560 Paper Based/220 Computer Based/ 83 Internet, or</li> <li>• Cambridge examination Board: Advance Certificate of English, grade C or above.</li> </ul> <p>Applicants who have studied and successfully achieved a UK degree, or a degree from an English speaking country, are exempt from the requirements to produce evidence of competence in English. Any applicant to the programme who does not match the above English language criteria will be given an interview (by telephone if face to face is not practical) to ascertain their knowledge, skills and experience in relation to the programme requirements. If a student who has been accepted onto the programme subsequently displays difficulty with the technical content and/or English language, support will be provided. In the first instance the module teacher, Project Manager or Programme Leader will discuss the issue with the student (in confidence) and advice would be given to the student. If the problem persists, the Project Manager and/or Programme Leader will discuss options with the student and, where a student has been placed on the programme by their employer, with the employer (with the student's permission), and the appropriate course of action for the remainder of the programme will be agreed jointly.</p> <p>Name of the final award: CPD in Risk Reduction &amp; ALARP</p> <p>Student support – brief summary: As students of LJMU, all participants of the programme have access to the LJMU online facilities including the E-Library. Support for all students is also provided by Risktec teachers, via the Risktec Online forums and email/telephone. Teachers are available for a</p>

## Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Portfolio	Essay	95	0	MLO2, MLO3, MLO4
Test	Test	5	0	MLO1

## 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
--------------	--------------------------	-----------