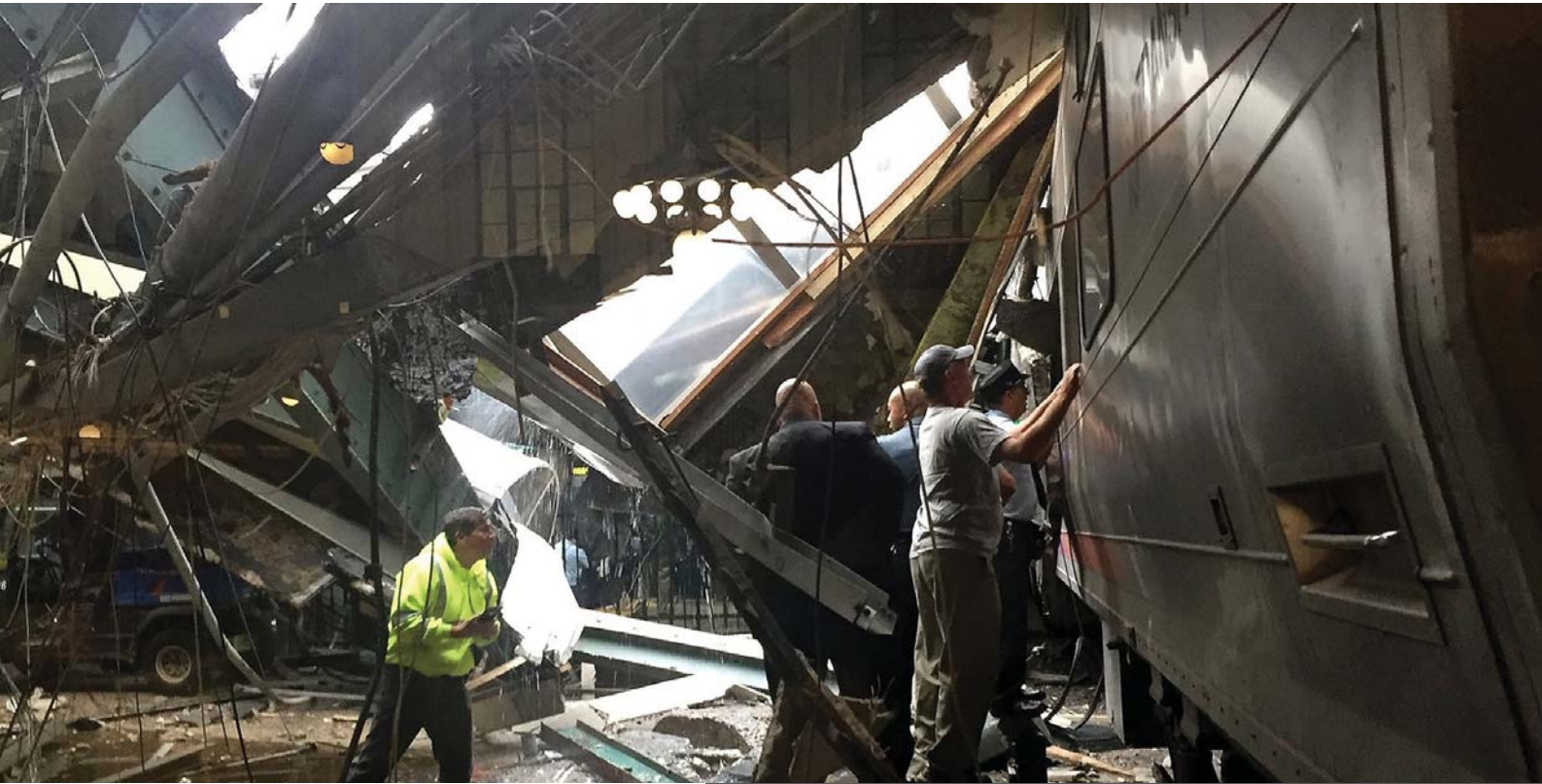


FUNDAMENTALS OF RAILWAY HUMAN FACTORS & ERROR MANAGEMENT

7-week online course | 2 hours per week | 2 May – 17 June 2022

7-week online course | 2 hours per week | 3 October – 18 November 2022



Our Expert Course Instructor



Dr Graham Edkins is considered one of Australia's leading Safety Management and Human Factors experts and is regularly retained as an independent safety investigator and human factors expert witness for various civil and criminal matters.

Key Learning Objectives

Upon completion of this course, you will be able to:

- ▶ Understand the evolution of human factors in rail, its current scope and how it may contribute to addressing future safety challenges in modern railway systems
- ▶ Understand human error within the context of significant rail safety incident investigations
- ▶ Incorporate practical proactive error management strategies contextualised to rail operations
- ▶ Address human performance limitations that may impact effective decision making and increase the probability of error occurrence
- ▶ Identify social and group influences that may shape human performance
- ▶ Adopt a systematic human factors analysis method for incident investigations to better identify errors and error producing conditions

REGISTER NOW>
www.informa.com.au/humanfactorserrorinrail

informa
corporate learning

FUNDAMENTALS OF RAILWAY HUMAN FACTORS & ERROR MANAGEMENT

7-week online course | 2 hours per week | 2 May – 17 June 2022
7-week online course | 2 hours per week | 3 October – 18 November 2022

ABOUT THE COURSE

Rail remains one of the safest forms of land transport, with road transport generating almost 14 times more accident costs than rail. While rail imposes fewer costs on the community in terms of accidents, congestion and emissions than other surface transport modes, the cost of rail accidents in 1999 was estimated at AUD\$133 million according to the Australian Bureau of Transport and Regional Economics (BTRE).

Over 20 years since this BTRE figure was published, and despite the highly protected and technological nature of the rail industry, human performance limitations at all levels of the rail industry remain the greatest challenge to further improving safety and reducing rail accident costs and impacts. The consequences of errors in the rail industry can be disastrous and the subject of public outrage, exhaustive inquiries and drawn out legal action.

However, the underlying reasons for human error are the most commonly misunderstood and poorly analysed issue in rail safety. While human error is widely recognised as a problem, management often engage in learned helplessness; nothing can be done to prevent human failings as accident causes. Some community sectors are also quick to attribute rail accidents to human errors, without taking the opportunity to assess human error within the context of the organisation and wider rail system.

This 7-week **Fundamentals of Railway Human Factors and Error Management online program** will provide participants with a good understanding of the key factors that influence human error within the rail industry and practical strategies for making systems more error tolerant. Upon completion of this program participants have the option of completing a further 4 weeks for the **Advanced Railway Human Factors and Error Management program**.

WHO WILL BENEFIT

This training program is designed for those individuals seeking a comprehensive understanding of applied rail human factors. Expected participants include:

- Rail Operations and Engineering Senior Managers
- Team Leaders and Supervisors
- Human Resource Managers
- Rail Safety and WHS Managers, Investigators and Auditors
- Quality, risk, compliance and assurance managers

EXPERT COURSE INSTRUCTOR



Dr Graham Edkins

Organisational Psychologist Dr Graham Edkins is considered one of Australia's leading Safety Management and Human Factors experts and is regularly retained as an independent safety investigator and human factors expert witness for various civil and criminal matters.

As a former Transport Safety Investigator with the ATSB, Manager Human Factors for Qantas Airways, Executive Director of Public Transport Safety Victoria, and Group General Manager for CASA, he brings a wealth of experience and detailed knowledge of contemporary safety regulation, major event investigation and human error management practices.

Dr Edkins has represented both the Victorian and Commonwealth Governments on a number of national forums, including the Standing Committee on Transport (SCOT) Rail Group, Vice Chairman, International Air Transport Association (IATA), Human Factors Working Group, Chair National Rail Safety Regulators Panel and the National Steering Committee for the development of National Rail Model Safety Legislation.

He has successfully designed and delivered customised rail safety investigation and human factors management training programs globally to a variety of public and private sector organisations and cultures.

BENEFITS OF LEARNING ONLINE

Informa Corporate Learning's online courses are new digital, interactive and engaging educational experience designed to maximise learning for professionals with busy schedules and/or small training budgets.

Our online courses are perfect opportunity for busy professionals as they require just 2 hours per week of your time and include an interactive forum for you to ask direct questions about challenges you are facing to expert course leaders.

Modules are released on a weekly basis, so you can pace yourself alongside your peers and you will have access to a comprehensive set of assets to support your learning such as video content, quizzes and case studies.

FUNDAMENTALS OF RAILWAY HUMAN FACTORS & ERROR MANAGEMENT

7-week online course | 2 hours per week | 2 May – 17 June 2022
7-week online course | 2 hours per week | 3 October – 18 November 2022

Course Outline

MODULE 1:

INTRODUCTION TO HUMAN FACTORS IN RAIL

- Human factors in context
- Human factors: Past, present and future
- The human factors contribution to significant rail safety accidents
- A simple human factors model
- Case study: Off the rails
- Course activity: Towards 2040 - What will be the human factors challenges in rail in the next 20 years?

MODULE 2:

INTRODUCTION TO HUMAN ERROR IN RAIL

- Introduction to human error
- What causes error?
- Different types of errors
- The positive side of error: Human compensatory ability
- Course activity: Which error type is it?

MODULE 3:

PRACTICAL ERROR MANAGEMENT STRATEGIES

- Organisational error management strategies
- Managing unintended actions (slips & lapses)
- Managing intended actions (mistakes & violations)
- Error management checklists for inspectors, investigators and auditors
- Course activity: Quiz

MODULE 4:

HUMAN PERFORMANCE LIMITATIONS

- Human information processing
- Task demands: Overload and underload
- Fitness for duty
- Managing human performance limitations in rail
- Case study: SPAD incident
- Course activity: Participants will examine a SPAD incident to identify human performance limitations and practical management strategies

MODULE 5:

SOCIAL & GROUP INFLUENCES ON PERFORMANCE

- Role, status, authority and conformance
- Strategies to improve team performance
- Case study: Rail safety incident
- Course activity: Participants will design a program to manage authority gradients

MODULE 6:

A HUMAN FACTORS ANALYSIS METHOD FOR INCIDENT INVESTIGATION

- Human factors analysis methods
- Errors and Error Producing Conditions (EPC's)
- Reactive Loss of Control Analysis (R-LOCA) model
- Case study: Revisiting off the rails
- Course activity: Quiz

MODULE 7:

MAJOR COURSE EXERCISE #1 - REACTIVE HUMAN FACTORS ANALYSIS

- Participants will be provided with the raw data from a rail safety incident and be required to:
 - Use the R-LOCA model to classify the errors and contributing factors; and
 - Identify practical strategies to reduce the potential consequences of any errors identified

Would You Like To Run This Course On-Site?

Informa Corporate Learning: On-site & Customised Training

If you have **8+** interested people, an onsite course can be an ideal solution. Speak with **Anton Long** on **+61 481 995 653** or **Holly Baldwin** on **+61 450 866 597** to discuss your customised learning solution, or email training@informa.com.au

FUNDAMENTALS OF RAILWAY HUMAN FACTORS & ERROR MANAGEMENT

7-week online course | 2 hours per week | 2 May – 17 June 2022
7-week online course | 2 hours per week | 3 October – 18 November 2022

Easy Ways to Register

1 **Web**
www.informa.com.au/humanfactorseerrorinrail

2 **Telephone**
+61 (02) 9080 4395

3 **Email**
training@informa.com.au

Fundamentals of Railway Human Factors & Error Management

Course Code	Location	Course Dates	Standard Price		4+ Dels Discount
P22GR33ON	Online	2 May – 17 June 2022	\$2,095 + 209.50 GST	\$2,304.50	Great Savings: When you book 4 or more participants! Call us today on +61 (2) 9080 4395 or email training@informa.com.au to take advantage of the discount offer.
P22GR33ON02	Online	3 October – 18 November 2022	\$2,095 + 209.50 GST	\$2,304.50	

If you're an international customer based outside of Australia, the GST will be excluded.

Privacy Policy & Updating your Details:

Please visit us online at www.informa.com.au/privacy for a full privacy policy. Database amendments can be sent to database@informa.com.au or phone **+61 (0) 2 9080 4017. ABN: 66 086 268 313**

Informa Corporate Learning – On-site & Customised Training

Informa Corporate Learning has a long-standing track record of delivering very successful customised learning solutions achieving real and measurable value for our clients through our senior training consultants.

If you have 8+ interested people, an on-site course can be the ideal solution – giving you the opportunity to customise our course content to your specific training needs, as well as attracting significant savings compared to public course costs.

Why Choose On-site With Informa Corporate Learning?

1. **Custom design** – Together, we will identify the best blended learning solution for your culture, your people and your training objectives.
2. **Quality Assured** – We design market-leading training programs, concepts and methodologies, with a 400+ course portfolio. Our rigorously selected 900+ instructor faculty are recognised experts in their field. Quality of their content and delivery methods is assured through continuous monitoring and evolution.
3. **On-site training** is a cost effective way to train your people and achieve your defined outcomes.

Our Long Standing Clients Include:

Rio Tinto, Siemens, Yarra Trams, Oz Minerals, Southern Program Alliance, SBS, Sarawak Government, Petronas, Boehringer Ingelheim, Glencore, Bluescope Steel, Baker Hughes, ActewAGL, Ambulance Victoria, ANU, Arrow Energy, Australian Super, Barrick, BHP, Chevron Australia, ConocoPhillips, CSIRO, Dalrymple Bay Coal Terminal, Department of Education, Department of Planning, Electricity Generating Authority of Thailand (EGAT), ENI Australia, EY, Fortescue Metals Group, Health Purchasing Victoria, IBM, IP Australia, Jemena, Metro Trains, Origin Energy, Public Transport Authority – WA, QGC – BG Group, Queensland Rail, Rio Tinto, Romgaz, South Australia Health, Woodside and more...

Speak with **Anton Long** on **+61 481 995 653** to discuss your customised learning solution, or email training@informa.com.au