Diploma of Higher Education in Railway Operations Management

This two-year course is ideal for anyone who has a Certificate of Higher Education (or equivalent). It may also be suitable if you have some qualifications and several years’ industry experience that could be considered through ‘Recognition of Prior Learning’.

This is a work-based learning course that we deliver with our academic partner, Glasgow Caledonian University. It is comprised of 5 modules which are delivered over 6 trimesters. Each module begins with a classroom-based tutorial. You are then assigned a personal tutor for each module who will support, guide and mentor you through the content.

Course details

This course will help you to:

• Gain a better understanding of the industry that you work in
• Develop your reflective skills through academic assessment.
• Gain an academic qualification for the industry in which you work.
• Advocate ways to achieve continuous business improvement by utilising newly learnt skills and best practice models.
• Use your enhanced commercial awareness to better understand your role and how it relates to the wider industry.

Entry requirements

Recognition of Prior Learning or any of the qualifications below:

• Certificate of Higher Education
• HNC – Higher National Certificate
• Vocational Qualifications Level 4
• Scottish Advanced Highers
• Irish Advanced Certificate

Knowledge and experience

Your relevant experience may be that you have:

• Basic understanding of railway operations
• Knowledge of the railway industry
• General understanding of customer services
• Basic understanding of safety
### Module 1
**Continuing Personal and Professional Development**

This module is intended to support you to become a capable and confident work-based learner and will equip you with knowledge, skills, and strategies to enable your continuing personal and professional development. The module will encourage you to apply concepts such as team working into the workplace and to also self-manage your own learning.

**Syllabus**
- Self-Development:
  - Becoming a work-based learner
  - Self-assessment, reflection, and learning
  - Self-management: tools and techniques
  - Developing learning skills; reading, researching, using evidence and academic writing
- Working with others:
  - Communication in organisations and teams
  - Relationship building, team working and collaboration
  - Motivation in the workplace
  - Problem solving and decision making

### Module 2
**Customer and Stakeholder Delivery Improvement**

This module introduces you to the public and private stakeholder and customer interest in rail and the intersections and relationships. It explores the concept of Stakeholder and customer satisfaction through use of models, methods, and evaluative data sets in order to enable improvement in your personal and professional practice.

**Syllabus**
- Key areas of railway customer services
- Journey Purpose
- Rail Connectivity
- Stakeholder types
- Stakeholder mapping and levels of influence
- Measurement, audit, and evaluative practice
- Concepts of customer service e.g. internal customer/ supplier processes.

### Module 3
**Whole System Thinking in Rail**

This module looks at the effective resourcing of operations from current and future planning perspectives. It will cover the importance of operations and engineers working closely together. The module will build on the 'whole system' thinking by exploring political, social, and economic specifics of rail staffing, collective bargaining, diversity and inclusion, effects of regulation and rostering practice, supervisory, management and leadership challenges, role definition and workforce planning.

**Syllabus**
- Whole System Thinking
- Safety of operations in adverse or degraded conditions, concept of fail safe and wrong side failures, achieving, maintaining, and improving operational safety standards.
- Communication systems and standards.
- Train types and main elements of railway infrastructure
- Methods of investigating and reporting accidents with a view to preventing recurrence
- Organisation structures, key roles, and job families in rail
- Principles and practices of rostering
- Improving rostering efficiency and fairness in political, economic and social contexts

### Module 4
**Quality and Efficiency in a High Performing Railway**

This module will introduce you to concepts and principles of safety standards, methods, and practices in normal and degraded conditions. From the basis of compliance and risk management, the principles of train planning are then considered with an overview of documentation, construction and use of the train plan. The module integrates safety and planning through a detailed look at performance measures in rail; the causes, the identification and quantification and the range of potential trade-offs required in the quest for performance improvements.

**Syllabus**
- The working of single, double and multiple track railways, basic signalling principles and systems for train spacing, track layout, headways, line speed, train speed, line capacity, single lines, bi-directional, electric power supply, level crossings, station, yard and terminal working.
- Timetable construction
- Types of Train Planning
- The train planning-performance loop.
- Brief history of railway safety law and current safety legislation.

### Module 5
**Work Based Project: Improving Business Practice**

In negotiation with your tutor you will identify a problem/issue within your organisation and carry out an investigation and propose recommendations to improve business practice. On completion of the project you should be able to demonstrate skills for the gathering, evaluation, analysis and presentation of information, ideas, concepts and secondary quantitative and/or qualitative data, drawing on a wide range of current sources and reflect on your performance.

**Syllabus**
- Experiential learning
- Reflective Practice
- Negotiating project content
- Writing a Project Proposal
- Researching and Literature Reviewing
- Project Management
- Writing a project report
- Delivering a presentation.