



## 1. Introduction

This prospectus sets out the potential benefits of an accredited training programme for graduate managers in support of the *Manager* grade and covers the relevant compliance points for accreditation by IGEM. Following agreement of the Graduate Manager Programme and its accreditation standards at the CPD Meeting on the 22 September 2010, this Revision 1 has an Appendix 3 giving examples of the range and standards for learning outcomes to Masters level. Refreshed statements for Manager grade *Accountabilities* and *Competencies* have also been incorporated in the revised section 3.

There is considerable market potential in gas businesses for this accreditation scheme, which will support Manager grade, as do the Accredited Graduate Training Programmes for the Engineering Council grades, CEng and IEng.

IGEM believes that the Chartered Management Institute accredits graduate management programmes, but to commercially confidential standards. To our knowledge, no other EC engineering institution accredits graduate management training programmes.

## 2. Entry Requirements for Manager Grade

The end point of the Graduate Manager Training Scheme is to ensure that graduates comply with the entry requirements for Manager grade, which are as follows:-

*Every Candidate for election or transfer to the class of Manager Grade Member shall comply with the following conditions:-*

*Hold a senior management position in the gas industry or an organisation directly associated/connected with the gas industry and have been a senior manager at this level for a minimum of 4 years;*

*or*

*Have a suitable academic vocational or professional qualification (i.e. NVQ Level III or above) and to have held an appropriate senior management position for a period of 2 years;*

*and*

*Demonstrate a personal plan of development that incorporates a clear commitment to lifelong learning and the Institution's policy of Continuing Professional Development.*

Considering the three criteria, point two befits a Graduate scheme, academically and in the short duration after entry to manager formation. However, the two years is considered in clauses 4.2 and 4.3 below, together with a consequential amendment proposed to admit graduate scheme managers.

## 3. Competence and Commitment Criteria for Manager Grade

### 3.1 Principle Accountabilities

The Accredited Scheme should deliver the Principal Accountabilities for Manager grade and these are set out below:-

- 1) Financial Accountability
- 2) Leadership

- 3) Level of Influence
- 4) Control and Compliance
- 5) Planning and Strategy
- 6) Management of change
- 7) Relationship to Engineering
- 8) Direction and Results management

### **3.2 Principle Competencies**

The graduates are likely to arrive at 21/23 years of age, but could be more mature graduates. The graduate training scheme for 'Managers' should cover a time period of two years, but the actual time taken may be extended to suite the company's and/or the graduate's needs. The overall aim is to achieve the competencies for Manager grade supported by validated records of personal achievement kept as evidence of attainment.

The key competencies listed below are those used to determine the appropriate depth and breadth of knowledge and competence for Manager grade, but are listed in no particular order of importance. Eventually the candidate needs all of these competencies in some degree and others, all to be applied in effective and efficient management activities by managers with rounded abilities.

Whereas all of these competencies are important, some of the principle competencies are marked with an asterisk\* and Candidate's records from assignments should highlight the experience gained in these various dimensions. Overall the training record should demonstrate personal achievement with increasing levels of real management responsibility and range.

These competencies include:-

*A record of conducting managerial activities with integrity, accountability and competence.*

#### *\*Financial Acumen*

Develop financial knowledge and its application over time on an increasing scale and scope of the candidate's personal responsibility for budgets and delivering shareholder value. Provide evidence for career progress through increasing personal responsibility for budgets and delegated approval levels.

*\*Knowledge of and Compliance with Legislation, including the customer focus, health and safety and ensuring gas safety.*

*Communicating and Informing, including Generating Support and Awareness on:-*

Policy

Strategy

Organising

#### *\*Leadership of:-*

People: Methods of leading and managing people. Increasing number of reports.

Developing and managing the candidate's teams

Evidence: What is your relative seniority within your organisation?

Describe how you discharge your leadership obligations. Detail the number of direct reports that you have.

Describe how you have supported and developed your team.

*\*Resource Management:-*

Demonstrate progression in relative seniority within management structures.

*\*Commercial Expertise, where appropriate.*

*\*Analysis and synthesis, including:-*

SWOT Analysis

Identification of Potential Risk Factors

Feasibility Studies

*\*Planning, Implementing, Auditing Measuring Performances/Outputs and Reviewing*

*Advising Clients/Customers/Colleagues*

*Any other competencies, as deemed appropriate by the Membership Committee. In this regard, the Company may introduce other relevant competencies for given reasons, so long as the above range of elements is not unduly compromised.*

Where further learning is part of the Graduate Manager training programme, the standard should be at honours degree, with masters preferable. Some examples for the Manager grade competencies and accountabilities are given in *Appendix 3*. Other examples for guidance can be found on the websites of University Business Schools and the Professional Institutions for the business management sector.

## **4. Graduate Level and Selection**

### **4.1 Selection Process**

The graduate would normally be selected by a recognised recruitment processes to have good academic qualifications and possess superior personal skills and character, such as drive, leadership and ambition etc.

### **4.2 Academic Levels**

As places on graduate training programmes are for premium candidates, their academic attainment is likely to exceed the minimum Level 3 or equivalent required by IGEM for entry to Manager grade; even a Foundation degree would exceed level 3. Where graduates are likely to be selected with Honours or Masters degrees and possess outstanding personal qualities etc., IGEM should consider some advantage to the candidate after successful completion of the accredited two-year graduate programme. For example, graduates with a good Honours degree or a Masters/MBA will have developed an understanding before taking the graduate programme of a complex body of knowledge, some of it at the current boundaries of an academic discipline. Typically, holders of the Honours qualification will be able to:-

Use a range of established techniques to initiate and undertake critical analysis of information, and to propose solutions to problems arising from that analysis.

Communicate effectively information, arguments, and analysis, in a variety of forms, to specialist and non-specialist audiences, and deploy key techniques of the discipline effectively'

Undertake further training, develop existing skills, and acquire new competences that will enable them to assume significant responsibility within organisations.

Will have qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and decision-making.

In addition, Masters/MBA studies will have been at, or informed by, the forefront of an academic or professional discipline. Graduates will have shown originality in the application of knowledge, and understand how the boundaries of knowledge are advanced through research. They will be able to deal with complex issues, both systematically and creatively, and will show originality in tackling and solving problems.

#### **4.3 Time in 'Appropriate Senior Management Position'**

IGEM should agree to shorten the time requirement '*... to have held an appropriate senior management position for a period of 2 years'*... for graduate managers completing a two-year IGEM accredited training programme.

Graduates selected with high academic attainment and personal potential etc, and having completed a graduate programme of two years, with evidence of progressive management achievement in range and depth, should be permitted to apply for Manager grade after one year in their substantive post.

Considering the IGEM statistics of member's age on entry to grades, IGEM's Database for *Under 30 year olds* gives recent examples for three grades:-

##### **Chartered - 27yrs (1), 29yrs (3), 30yrs (8)**

27 yrs - joined as a Graduate member at the age of 24 initially, through Mouchel. He was also a member of IMechE and became Chartered through them, then applied for CEng as a Dual Registrant with IGEM at the age of 26.

29 yrs - joined as a Graduate member at the age of 24 initially, was a Graduate Trainee from Hong Kong and China Gas, transferred to CEng at 27yrs.

29 yrs - joined as a Graduate member at the age of 25 initially, was a Graduate Trainee from Hong Kong and China Gas, transferred to CEng at 27yrs.

29 yrs - accepted for CEng at 28 yrs. Worked at Penspen and undertook Pipeline Engineering at Newcastle.

##### **Incorporated - 29yrs (4), 30yrs (1)**

##### **Manager grade - 27 (1)**

Joined as Manager grade at the age of 25, worked for Peabody Trust as Gas Manager.

As IGEM needs to encourage more membership applications in the mid-twenties age range, it is appropriate to consider the average age of applicants for Manager grade. Graduates at 21/22/23 years, the latter with gap years etc., plus two on the graduate training programme, should be starting as working managers in responsible jobs by the age range 23/25. It is arguable that Graduate Managers will have responsibilities for higher budgets and more company resources at earlier ages than their 'Engineering' colleagues.

*The proposal for graduate managers completing an IGEM accredited programme is that they shall be eligible to apply for Manager grade after one year in their first post-programme management job. Also providing that they have maintained their CPD action plan and validated record.*

Having made this case for graduate managers, encouraging applications from Engineers earlier in their careers also needs promoting heavily.

## 5. Period of Graduate Training for Manager grade, Support and Records

The period and training of graduates for *Manager grade* should reflect those approved by EC and Council for CEng and IEng, as all are corporate grades of IGEM. These dimensions are summarised below and should follow the detailed processes set out in the IMechE *et al* templates for *Accreditation* and the *Annual Improvement Report*, see Appendices 1 and 2.

### 5.1 Period

Assuming an overall duration of two-years, the time could be divided to include an:-

#### *Initial training period of two months*

This would permit the graduate to become familiar with the various aspects of the host company's business. However there should be some flexibility here if the candidate happens to be familiar already with company operations.

#### *Balance of 18 months*

Gaining learning and experience in a series of short assignments, e.g. 2 to 3 months duration on subjects relevant to company business interests, particularly in the working environment. A programme should be agreed between management and the candidate to ensure that the range of competencies in 3 above are covered to the required standard in each assignment.

However, some flexibility should be permitted with justification provided for reasons of company business needs, e.g. the training period need not be continuous or further more specialised training may be necessary for the graduate, delivered external to the business operations.

### 5.2 Support

In the company business environment, the Graduate scheme needs evidence of high-level management support in principle and in practice. Also evidence of support and responsibilities cascading down and along the management chain.

*Mentors* should be arranged for each candidate as an independent anchor point, preferably for the duration of the programme and the various assignments, but with flexibility.

*Managers receiving* trainees on assignments should be briefed on the assignment and agree a programme of involvement, which should be written down at the outset, together with any targets of achievement and/or learning points. The assignment should be completed with a written report on outcomes.

There should also be evidence of support from any *manager responsible overall for company training* in order to monitor general progress and arrange for performance reviews etc in compliance with the graduate scheme.

### 5.3 Validating Training Records as Evidence

It is good practice for all parties to sign and date all training documents and records to provide contemporaneous evidence of achievement. This authenticates the evidence for use in the years ahead. Also, validated records proved to be better evidence later at IGEM interview, where affective controls are essential to minimise the risk of fraudulent records.

### 5.4 Encouraging Graduate Participation in Other activities

Graduates can benefit in their management formation from participation in activities external to the run of company operations, e.g. activities for charity, environmental or other societal benefits etc.

Graduates can also benefit from participation in IGEM events, like the *Young Persons Paper Competition*, Regional and National events on Gas business and technologies. Also to be encouraged is participation in IGEM and national technical standards making, all in order to expand their competencies, experience, presentation and debating skills and expand their network of contacts.

## 6. Proposal for Accrediting Graduate Training for Manager Grade

The Accreditation of graduate training programmes leading to IGEM Manager grade should assist the promotion of this grade and add some kudos to it as a Corporate grade.

The standards set for Graduate Manager programmes should reflect those well established already for accrediting CEng and IEng membership grades to Engineering Council standards. These are summarised in the templates used by IGEM, authored by IMechE et al for *Accrediting* programmes and for the *Annual Self-improvements Reporting Form*, Appendices 1 and 2.

Graduates entering Accredited Graduate Manager programmes are likely to have qualifications well above the minimum Level 3 for Manager, particularly if Hons graduates or with Masters/MBA. Considering the detailed content of these graduate programmes, the records of progressive increases in competencies of the graduates during their programme, both in range and depth, and the fact that these are gained in real work assignments, the qualifying time for *Manager grade* applications, i.e. 'to have held an appropriate senior management position for a period of 2 years', is proposed to be reduced to *one-year after commencing their first substantive post*.

Early applications should be encouraged for the Manager grade and for the EC CEng, IEng and Eng Tech grades.

**Appendix 1: Accreditation Template [IMechE et al]**

**Appendix 2: Annual Self-Appraisal Report Template to the Accrediting Body [IMechE et al]**

**Appendix 3: Standards for Further Learning**

**Example; University of Durham**

**Business and Management Masters:** MA in Financial Management

**Some Core Modules**

**Research Methods in Business and Management**

While a stand-alone module, this module also supports you in your dissertation work by providing a critical understanding of social science research. The knowledge, understanding and skills learned in the module can then be applied to the study of finance, management and business, and helps you develop the necessary skills to effectively organise, structure and manage a research project.

**Business Economics and Accounting**

Everyone working today needs a solid grounding in the essentials of business economics and financial accounting. This split module enables you to acquire and consolidate an operational knowledge of the fundamentals of both, and to appreciate their relevance for strategic decision-making and planning.

**Organisation Behaviour**

Understanding how people think and act at work is essential knowledge for any manager. This module examines the behaviour of individuals in organisations. You will develop sophisticated understanding of the role of individual differences, personality and ability; attitudes such as motivation, commitment and trust; leadership, team and group



dynamics; and methods for managing successful organisational change. Throughout the module you will apply your learning to real organisational situations, including making suggestions for behavioural interventions.

### **Strategy**

This module introduces you to the nature of strategy and the processes of strategic decision-making within organisations. As well as explaining a range of strategic analysis techniques, including numerical methods, the module explores the content of particular strategies and the factors influencing strategy development within organisations.

### **Theory of Finance**

Aims to give you a rigorous grounding in the theory of modern finance at an advanced level and a thorough synthesis of the most important current research in finance. The emphasis is on the applications of the principles and the relevance of the theory to the practice of financial management, including capital budgeting and investment decisions under conditions of uncertainty, portfolio choice, financial asset pricing and company valuation.

### **Corporate Finance**

Aims to give you advanced knowledge and critical understanding of the essential components of modern corporate finance including ownership structure and governance; capital structure and dividend decisions, and mergers, acquisitions and restructuring. The emphasis is on the applications of the principles and the relevance of theory to practice.

### **Financial Management**

The module aims to develop the financial tools of business management, emphasising issues of long-term financial decision-making. The module provides you with the ability to critically evaluate the information needs of management for control and decision-making purposes. It also provides you with a critical understanding in the use of management accounting information and appreciation of the limitations of such information.

### **Elective modules:**

#### **Buyer Behaviour and Marketing Communications**

This module investigates the specialised area of buyer behaviour and the management of customer-centric Integrated Marketing Communications (IMC) strategies to develop a critical appreciation of the complex nature of the customer decision-making process, together with the challenges marketers face in seeking to influence that process. You will acquire the specialised skills needed to develop a comprehensive marketing communications strategy that is founded upon a grounded knowledge of how and why customers behave as they do.

#### **Corporate Governance**

This module investigates corporate governance mechanisms which serve to promote transparency, responsibility and accountability in organisations. The objective is to develop your skills in the analysis of systems of corporate governance, both at the level of individual organisations and economic systems. Particular attention will be paid to the reasons for, and the impact of, differences in systems of corporate governance at international level.

#### **Decision Making for Operations**

This module provides insights into a number of quantitative models designed to help in decision making. The main topics are: risk and uncertainty; statistical modelling; forecasting; multiattribute evaluation; game theory. Throughout, the aim is to show how these models can help in a decision, not make the decision. Emphasis is therefore given not just to familiarisation with the methods but also the wider setting of problem and solution and the role that models might play within it.

## **East Asian Business and Management**

The module enables students to critically appreciate business and management issues relating to East Asia. It helps students to critically understand the leading business systems within the region. The module also engages students in a comparative analysis of key East Asian organisational and management preferences. The module will also examine the problems and opportunities for developing East/West business relationships.

## **Employee Relations and Rewards**

The module develops your knowledge and understanding of the key issues relating to trends in employee relations and reward management. The module also provides you with the opportunity to critically understand the reasons and explanations behind such trends, as well as critically review debates and practices in employee relations and reward management.

## **Financial Planning and Control**

This module aims to develop your understanding of the financial control processes through the study of cost behaviour, budgeting, resource allocation and capacity planning, activity based costing systems and management, financial measures of performance, the balance scorecard, and incentive measures and performance.

## **Global Business**

The module provides a critical approach enabling you to explore concepts and practices related to managing in a turbulent, dynamic global environment. The module seeks to challenge conventional strategic thinking by investigating new models of international companies driven by networks, global links and adaptability.

## **Mergers and Acquisitions**

This module aims to provide students with the opportunity to develop the ability to critically understand current theoretical and empirical research in the field of M&A. The topics will cover valuation of the target firm, choice of medium of exchange in takeovers and issues that link corporate restructurings to the market for corporate control.

## **Multinational Finance**

This module provides you with an up to date and advanced understanding of the issues that confront the financial management of multinational companies. It also analyses the complexities and contradictions of the current academic literature in the field of financial management or multinational corporations.

## **Organisations: an Ecological Perspective**

The module aims to provide a unified theoretical framework to analyse issues from diverse areas of management including issues of strategy, human resource management, marketing, and change management. The theoretical framework stems from Organisational Ecology but includes considerations from Institutional Theory as well as Transaction Cost Economics.