

Lifetime Learning 3



THE INSTITUTE
OF PETROLEUM



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A special supplement to

Petroleum
review

Life-long employability

John Evans, Director, IP Membership Services, outlines how the Institute of Petroleum aims to help individuals develop a unique portfolio of skills and knowledge on which to build a long-term career in the oil and gas industry.

A definition of employability?

'The possession by an individual of the qualities and competencies required to meet the changing needs of employers and customers and thereby help to realise his or her aspirations and potential in work' (CBI, 1998).

Perhaps this definition should include some reference to development of life skills beyond the workplace, but it provides a useful backdrop to the third *Petroleum Review* supplement devoted to Lifetime Learning – the process by which an individual acquires a unique portfolio of skills, knowledge and understanding during his or her working career that con-

tribute to ongoing employability.

The IP announced its commitment to becoming 'a learning society' early in 1997. The essential principles underlying the IP's approach are that:

- Learning is the responsibility of individuals.
- Learning should have improved performance as its aim.
- Learning objectives should be clear and should address industry needs as well as professional and organisational needs.
- Outcomes of learning are more important than the amount of input.

The concept of learning, *per se*, is still not well understood. The IP's approach to Lifetime Learning stresses that personal development comes from developing competencies through a range of different 'learning experiences.' These include formal training, but also encompass personal study, work on the job, participation in peer groups, such as specialised technical committees, attendance at lectures, seminars and conferences, and ultimately access to freely-available sources of information, for example through our Library and Information Service and of the increasing important role of the IP website www.petroleum.co.uk

Despite the recognition that learning takes many forms, this year's Lifetime Learning supplement extensively covers formal training with our regular directory of providers (also available on www.petroleum.co.uk) and an article about the IP's own Training Portfolio.

To assist them with their own learning, members are reminded that the IP's Lifetime Learning 'tool kit' is available (see below). ●

The IP Lifetime Learning Plan

Recognising the growing need for guidance among our members in managing their own personal and career development, the IP offers its own *Lifetime Learning Plan*.

The *IP Lifetime Learning Plan* can help you with:

1. **Self-assessment.**
2. **Checking the validity of this assessment.**
3. **Identifying aims and objectives.**
4. **Developing an action plan to achieve those aims and objectives.**
5. **Implementing the action plan.**
6. **Monitoring and recording your performance against your plan and provide you with a template for its management.**

Many companies in the oil and gas sector and other professional institutes provide similar templates. This is an alternative that you may wish to use if it fits your circumstances.

The IP Lifetime Learning Plan and accompanying Workbook is available only to members of the Institute. If you would like more information, or copies of the Plan and Workbook, please contact our Membership Department at:

**The Institute of Petroleum, 61 New Cavendish Street,
London W1M 8AR, UK
Tel: +44 (0)20 7467 7100 Fax: +44 (0)20 7255 1472
e: memb@petroleum.co.uk**



The role of IP training

The Institute of Petroleum's comprehensive training portfolio, acts as a keystone in the IP Lifetime Learning philosophy. *Nick Wilkinson, IP Training Business Manager, provides a brief overview.*

Given the Institute of Petroleum's stated mission: '... to be the best independent European centre for the advancement and dissemination of technical, economic and professional knowledge relating to the international oil and gas industry,' it comes as no surprise that we, as an organisation, should have developed a portfolio of industry-related training courses. It was also a natural fit for an organisation promoting a philosophy of 'Lifetime Learning.'

The evolution of our programme has parallels with contemporary economic development. Launched some 18 years ago, our two key training course 'products' – an *Introduction to Oil Industry Operations* and an *Introduction to Petroleum Economics* – had been periodically up-dated. However, as a range, the course portfolio remained static until economic pressures and external influences (self-help to maintain skills and employability), coupled with innovative thinking in response to these factors, coincided with a review of the IP range of services.

Launch of new portfolio

This exploratory work culminated in 1999, in the launch of an extended range of IP Training Courses. The new portfolio covers a much increased number of industry-related topics, and its development represented a shift in the role played by the IP – moving from passive provider to proactive facilitator and marketer, capable of capitalising on its respected brand in attracting equally respected training providers.

By entering into cooperative partnership with providers and focusing on the specialised needs of the oil and gas industry, rather than seeking to provide 'generic skills' training, the IP was well placed to satisfy needs, perceived among its membership and the wider industry population, thus supporting the requirements for Lifetime Learning.

The scope of the 1999 programme covered such topics as: *Trading and Price Risk Management; UK and US Financial Accounting Methods; plus Refining Planning and Economics; as*

well as the established IP Introductory courses to the industry.

Bespoke in design, each course has been structured to meet practical needs and to provide skills which translate readily into the workplace. In addi-

*Training –
practical
education in
any profession;
the act of one
who trains
(a dictionary
definition)*

tion, courses are delivered in such a way as to maximise the level of delegate participation, thereby facilitating the learning process and experience and, as a by-product, providing opportunities to network with and share the experiences of other delegates. In the case of the *Trading and Price Risk Management* courses – where the purpose-built, residential training course facilities of the Møller Centre, Churchill College, in Cambridge, are used – long-term relationships build quickly through the daily syndicate work and after-class socialising on and off campus.

Given the industry back-cloth of \$10/b crude and its rapid restructuring through a series of mega-mergers and

take-overs, 1999 was not, with the benefit of hindsight, the most opportune time to launch a new range of products and to gamble the substantial development costs of both the IP and each training provider.

Continued development

Happily, however, the success enjoyed in this first year has since led to further development of the IP's training portfolio for 2000. New partnerships have been forged with such organisations as: Cordah Limited, IBRU – International Boundaries Research Unit, SGS-Redwood Services, together with DERA, to allow an extension to the range of topics catered for. New areas covered include: *Environmental Risk Management, Boundary Dispute Resolution* as well as *Maritime Jurisdiction, Loss Control Issues and Management, and Aviation Jet Fuel*. Furthermore, in response to newly established needs, additions to the original suite of courses have been made in conjunction with existing providers.

The road ahead

The oil and gas industry has experienced a period of change and is now expected to enter into a stage of consolidation. Allied so closely to the industry, both nationally and globally, IP Training needs to pause, albeit momentarily, in order to firmly establish its product range and consolidate its position as a 'brand leader.'

During this period, consolidation must not become synonymous with inactivity or complacency. Rather the IP needs to explore, in parallel, new opportunities and new approaches to training. To this end – and with the advent of everything 'e' and the need to contain corporate costs – we too, must be mindful of the need to remain innovative in the provision of appropriate solutions to training needs and issues.

The dynamic nature of the oil and gas industry will, inevitably, continue to impact and exert influence on those currently providing training services and products to it. It is therefore reasonable to expect a structural change in the way in which these items are delivered and by whom they will be delivered in the future. Needless to say, the IP's plans are well advanced in this regard and it is intent on continuing its pivotal role within this market.

Building better business

Human skills are subject to obsolescence at a rate perhaps unprecedented in history. It is vital that all those working within the downstream industry have the opportunity to learn through work, and at work, the new skills that will be required to help to build better businesses for the future. *Allan Connarty*, General Manager, PINTO (Petroleum Industry National Training Organisation) explains.

Lifelong learning is as much an attitude of mind as it is a process. As children, we continuously experiment and interact with the world, learning what works for us and what does not; then we enter the formal world of learning for a few years. That provides us with a set of skills to enhance our ability to interact and learn. Traditionally, most people leave the world of formal learning far behind as they move out of their twenties. By that stage, all the primary knowledge and skills necessary for a successful career have been established. Thereafter, we rely heavily on deepening that package through experiential learning at work.

That worked well enough while the pace of change was steady and evolutionary. Most people could remain in one industry, or even one company, throughout their careers. Over the last 15 years, however, the rate of change in business, driven on by customer demand and the technology revolution, has considerably accelerated.

Recent research by PINTO reveals that over the next five years employers in the downstream industry expect the pace of change to quicken. They will be seeking different skills from the workforce, demanding more adaptability in response to the developing market place and better IT skills. This is a picture reflected across UK industry.

Addressing skills shortfalls

Adaptability means that relying on skillsets learned years ago, developed by several years of experience, is not always enough. At present it is important to learn new skills, to broaden the knowledge base and to address any shortfalls in the portfolio.

There is help available. Many education and training providers have developed short learning programmes aimed at addressing the common areas of need. There is an increased awareness of adult learning needs and the government is introducing Individual Learning Accounts to help with the cost

of courses.

As well as individuals addressing their own needs, it is, of course, important that companies examine their training programmes to ensure that they are providing the appropriate learning packages for their future business requirements.

The learning business

There is now ample evidence that the 'learning business' is a successful enterprise. PINTO is working with companies and other partners to review industry standards and to develop new syllabuses that will be contributing to improved learning opportunities for the workforce. It is, in our view, important for everyone working within the downstream industry to have the opportunity to learn through work, and at work, the new skills that will be required to help to build better businesses for the future.

It is PINTO's mission to promote education and training that is aimed at improving business performance across the industry. We are working with a number of organisations and companies to develop new learning packages using the Internet and company intranets to produce the opportunity to learn on demand. We are encouraging training providers, trade associations and the Institute of Petroleum to support this process by providing opportunities for all through their various individual training courses and programmes.

I'd like to take this opportunity to encourage everyone, as individuals, to take responsibility for their own learning and to ensure that they offer the best package of skills to their

More about Lifetime Learning

The Lifetime Learning Plan

Links to Training Organisations

Further details about the IP's Lifetime Learning initiative can be found on the IP website www.petroleum.co.uk

Training and education directory

This directory lists training and education suppliers, both within the UK and overseas, which offer courses that are particularly relevant for the oil and gas industry. Where courses have received official accreditation from the relevant National Training Organisations (NTOs), this is indicated. Additional sources of general information are provided below.

Note: *OPITO approved establishment

IP partners in training

Cordah

Unit C Kettock Lodge, Aberdeen Science & Technology Park, Aberdeen, AB22 8GU, UK
Tel: +44 (0)1224 414200 Fax: +44 (0)1224 414250
e: main@cordah.co.uk www.cordah.co.uk
Provides research, consultancy, technical and training services. Courses on Environmental Risk Management (in association with the IP).

Defence Evaluation and Research Agency (DERA)

Fuels and Lubricants Centre, Building 442, DERA Pystock, Farnborough, Hants, GU14 0LS, UK
Tel: +44 (0)1252 374772 Fax: +44 (0)1252 374791
e: pcarberr@dera.gov.uk www.dera.gov.uk
Courses on Aviation Jet Fuel (AV), (in association with the IP).

École Nationale Supérieure de Pétrole et des Moteurs Formation Industrielle (ENSPMI)

232 Avenue Napoleon Bonaparte, 92852 Rueil - Malmaison, Cedex, France
Tel: +33 1 47 52 71 06 Fax: +33 1 47 52 70 41
e: bernard.lery@enspmf.com www.ifp.fr/enspmfi
Economics & Management; Exploration; Drilling; Production; Refining; Equipment; Maintenance.

International Boundaries Research Unit (IBRU)

Suite 3P, Mountjoy Research Centre, University of Durham, DH1 3UR, UK
Tel: +44 (0)191 374 7701 Fax: +44 (0)191 374 7702
e: ibru@durham.ac.uk www.ibru.dur.ac.uk
Courses on Maritime Jurisdiction and Boundary Disputes (in association with the IP).

Invincible Energy

Westport House, Bentley, Farnham, Surrey, GU10 5HY, UK
Tel: +44 (0)1420 22862 Fax: +44 (0)1420 22863
e: learning@invincible-energy.com www.invincible-energy.com
Courses in Trading Oil on the International Markets; Price Risk Management; Economics of the Oil Supply Chain (in association with the IP).

The Professional Development Institute of The University of North Texas (PDI)

PO Box 310769, Denton, Texas 76203-0769, USA
Tel: +1 940 565 2483 Fax: +1 940 565 3362
e: hbrock@pdi.org www.pdi.org

Offers seminars, schools, conferences and in-house training programmes in oil and gas accounting, finance and taxation. PDI is the continuing professional education arm of the University of North Texas in Denton, Texas. Courses on Financial Accounting for Petroleum Companies; Accounting for International Petroleum Contracts; Production Sharing and Risk Service Contracts; and Joint Operating Agreements (in association with the IP).

SGS Redwood Services

Old Station Approach, London Road, Purfleet, Essex, RM19 1QS, UK
Tel: +44 (0)1708 681923 Fax: +44 (0)1708 681910
e: bcemy@sgsgroup.com
Courses on Custody Transfer of Crude Oil (in association with the IP).

General information sources

ECCTIS 2000 Ltd

Oriel House, Oriel Road, Cheltenham, Gloucestershire, GL50 1XP, UK
Tel: +44 (0)1242 252627 Fax: +44 (0)1242 258600
e: enquiries@ecctis2000.co.uk www.ecctis.co.uk
The official courses guide to approximately 100,000 courses at over 1,000 universities and colleges of further and higher education. Users can search by course subject, location, method of study or by institution. The database also provides information on routes to professional qualifications, including how study can lead to exemption from examinations.

EMD - European Management Development

Naarderstraat 296, 1272 NT Huizen, The Netherlands
Tel: +31 35 695 1111 Fax: +31 35 695 1900
e: mail@emdcentre.com www.emdcentre.com
Since 1992, the EMD Centre has provided annual Management Education Directories for Europe, Asia-Pacific, North America and in-company. All directories are in hard cover and on-line accessible. See also www.emdcentre.com/demo Training managers in over 60 countries worldwide use these Directories for selecting, budgeting and planning management courses.

National Training & Consultancy Index

174 Hammersmith Road, London, W6 7JP, UK
Tel: +44 (0)20 8267 4289 Fax: +44 (0)20 8267 4291
e: editindex@dial.pipex.com www.trainingindex.co.uk
Established 1967. It provides information, evaluation and course booking service on a wide range of generic training suppliers. They cover: IT; Finance; General Management; Industrial Management; Management Techniques; Marketing; Personnel & Training; Health & Safety; and Specialised Industries (including Geology - Geophysics; Petroleum - Gas - Petrochemicals; Energy - Coal).

OPITO - The National Training Organisation for Oil and Gas Extraction

Minerva House, Bruntland Road, Portlethen, Aberdeen, AB12 4QL, UK
Tel: +44 (0)1224 787800 Fax: +44 (0)1224 787830
e: info@opito.co.uk opito@opito.co.uk

www.opito.com

Develops and sets training standards for the offshore oil and gas industry, as well as programmes and courses to satisfy training needs.

Petroleum Industry National Training Organisation (PINTO)

8 Fulton Road, Wembley, HA9 0ND, UK
Tel: +44 (0)20 8982 1550 Fax: +44 (0)20 8982 1554
e: reception@pinto.co.uk www.pinto.co.uk

PINTO is the National Training Organisation for the downstream petroleum industry. It is recognised by the UK Government as the industry's voice on education and training issues. It belongs to its member companies and provides information on developing people. Further information of PINTO's services is available on its website.

Professional level and short courses

Abacus International

214 Inchbonnie Road, South Woodham Ferrers, Essex, CM3 5WU, UK

Tel: +44 (0)1245 328340 Fax: +44 (0)1245 323429
e: info@abacus-int.com www.abacus-int.com

A totally independent organisation which, since 1993, has specialised in providing professional training for the petroleum industry. Regular open seminars are presented in Europe, the Middle East and the Asia-Pacific region. It also designs customised in-house training courses for individual clients that can be presented almost anywhere, worldwide.

Aberdeen College

Gallowgate Centre, Gallowgate, Aberdeen, AB25 1BN, UK

Tel: +44 (0)1224 612000 Fax: +44 (0)1224 612001
e: enquiry@abcol.ac.uk www.abcol.ac.uk

Courses in Multi-Disciplinary Engineering; Marine & Offshore Technology; and Electrical Technology.

Aberdeen Drilling School & Well Control Training Centre

50 Union Glen, Aberdeen, AB11 6ER, UK

Tel: +44 (0)1224 572709 Fax: +44 (0)1224 582896
e: info@aberdeen-drilling.com www.aberdeen-drilling.com

All aspects of drilling technology and equipment, well control, drilling technology, management and safety training. Standard in-house training and specialised training offered to meet individual customer requirements.

Aberdeen First Aid School

Norton Centre, Poynerook Road, Aberdeen, AB11 5RW, UK

Tel: +44 (0)1224 585844 Fax: +44 (0)1224 585899
e: info@afas.co.uk www.afas.co.uk

HSE-approved Offshore and Onshore First Aid Courses. 4-day HSE courses with 2-day refresher courses running every week. Places are always available, and courses are never cancelled. Advanced courses also available.

Aberdeen University Oil and Gas Centre, Research and Innovation

23 St Machar Drive, Aberdeen, AB24 3RY, UK

Tel: +44 (0)1224 272484 Fax: +44 (0)1224 487658
e: e.bowie@abdn.ac.uk www.abdn.ac.uk/oilgas

Offers wide ranging multi-disciplinary expertise including areas such as Petroleum Economics; Petroleum Geology; Safety Engineering; Environmental Monitoring; Environmental Law; Business Management; International Relations. The Centre facilitates and project manages collaboration with the University of Aberdeen. It works with the University's Vocational Training Unit to develop accredited programmes and short courses requested by the industry.

Advanced Drilling International

Forties Road, Montrose, Angus, DD10 9ET, UK

Tel: +44 (0)1674 671600 Fax: +44 (0)1674 671090

e: enquiries@advanceddrilling.com

www.advanceddrilling.com

ADI runs training courses in all the key areas of oilfield expertise. It also hires its rig out to those companies wishing to train their own personnel, or those wishing to test oiltools in development.

AEA Technology plc

E1 Culham, Abingdon, Oxfordshire, OX14 3ED, UK

Tel: +44 (0)1235 842424 Fax: +44 (0)1235 464033

e: alan.wilcockson@aeat.co.uk www.aeat.co.uk

Short courses in a wide range of topics including Safety; Environmental Hazards; Risk Based Inspection; all aspects of Plant and Equipment, including Rotating Machinery and Pumps, Production Engineering, Reservoir Engineering and Decision Risk Management.

American Association of Petroleum Geologists

1444 South Boulder, PO Box 979, Tulsa, Oklahoma 74101 0979, USA

Tel: +1 918 560 2650 Fax: +1 918 560 2678

e: educate@aapg.org www.aapg.org

The AAPG Education Department stimulates and guides a viable programme by setting goals, guidelines and directions that satisfy changing needs in continuing education. These needs are reflected in the short courses, schools, field seminars, training seminars, course note series and related education activities on offer.

Appropriate Training Ltd

Strand Street West, Preston, Lancashire, PR2 2NS, UK

Tel: +44 (0)1772 723377 Fax: +44 (0)1772 768611

e: train@appropriatetraining.demon.co.uk

www.appropriatetraining.co.uk

Institution strengthening analysts, consultants and training materials providers. Bespoke training programmes for individuals and small groups.

AUPEC Aberdeen University Petroleum and Economic Consultants

Block C, Davidson House, Campus 1, Aberdeen Science and Technology Park, Baggownie Road, Aberdeen, AB22 8GT, UK

Tel: +44 (0)1224 853700 Fax: +44 (0)1224 853701

e: mail@aupec.com www.aupec.com

AUPEC provides economic products and services to industry and public organisations worldwide. Its services/products include: benchmarking, cost-benefit analysis, economic modelling and forecasting, economic risk analysis, investment appraisal, taxation analysis and in-house training for clients.

Baker Atlas Geoscience

455 London Road, Isleworth, Middlesex, TW7 5AA, UK

Tel: +44 (0)20 8560 3160 Fax: +44 (0)20 8231 7260

e: zahid.patval@bakeratlas.com www.bakeratlas.com

Petroleum Technology; Petrophysics; Geology; Economics; Well Logging; Usage Schools; Reservoir Engineering and Simulation.

Bentham Technical Training

Dilke House, Malet Street, London, WC1E 7JN, UK

Tel: +44 (0)20 7436 7500 Fax: +44 (0)20 7436 2112

e: v.li@bentham.co.uk www.bentham.com

2-day and 3-day offshore engineering training courses (Introduction, Advanced, and Specialised); Finite Element Analysis; Pipeline Design & Engineering; Risk Analysis Techniques/Offshore Safety; General Management and Engineering Training; Engineering Technology.

*** Blackpool and the Fylde College - Fleetwood Offshore Survival Centre**

Fleetwood Offshore Survival Centre, Broadwater, Fleetwood, UK
Tel: +44 (0)1253 779123 Fax: +44 (0)1253 773014

e: jbo@blackpool.ac.uk

www.lboro.ac.uk/departments/CHARM/charm.html

Health & Safety Management; Waste Management; Healthcare Risk Management; Backcare Management; Industrial and Commercial Security.

Caledonia Training & Consultancy Ltd

Crombie Lodge, Campus 2, Aberdeen Science & Technology Park, Balgownie Road, Bridge of Don, Aberdeen, AB22 8GU
Tel: +44 (0)1224 708141 Fax: +44 (0)1224 705718

e: info@caledoniactc.co.uk

Specialists in drilling and well services. Accredited by IWCF, IADC, SQA.

Cambrian Consultants Ltd

Mayfield, Llanbbadoe, Usk, Monmouthshire, NP15 1SY
Tel: +44 (0)1291 673022 Fax: +44 (0)1291 673023

e: training@cambri.com

www.cambrian-group.com

Cambrian provides specialist geoscience and IT training courses to the upstream oil industry. It also offers geoscience services and products ranging from wellsite geology to technical evaluation and software applications. Offices in Usk (South Wales), Houston and Kuala Lumpur, enable the full range of services to be supported internationally.

Centre for Advanced Maritime Studies

Albert House, 7 Johns Place, Edinburgh, EH6 7FL
Tel: +44 (0)131 555 0525 Fax: +44 (0)131 554 0565

e: admin@camsedin.org.uk www.camsedin.org.uk

Courses on Petroleum Tanker Safety; Liquified Gas Carrier Safety; Crude Oil Washing and I G Systems; Pollution Prevention and Abatement; Chemical Tanker Safety; Introduction to Ship Inspection Principles.

Centre For Energy, Petroleum & Mineral Law & Policy

University of Dundee, Park Place, Dundee, DD1 4HN
Tel: +44 (0)1382 344300; +44 (0)1382 345175

Fax: +44 (0)1382 322578

e: cpmlp@dundee.ac.uk

www.cepmlp.org

Flexible degree programmes: full-time, part-time and limited distance-learning Diploma/LLM/MSc/MBA/PhD in energy, the environment, international business transactions, mining, oil and gas, water law and policy available.

Centre for Marine Technology

Room D15, DERA, Portsdown West, Portsdown Hill Road, Fareham, Hampshire, PO17 6AD

Tel: +44 (0)2392 335500

Fax: +44 (0)2392 335414

e: cenmartec@dera.gov.uk

www.dera.gov.uk

The Centre for Professional Advancement

Oudezys Voorburgwal 316 A, 1012 GM Amsterdam, The Netherlands

Tel: +31 (0)20 6382806

Fax: +31 (0)20 6202136

e: amsterdam@cfpa.com

www.cfpa.com

CHARM - Centre for Hazard and Risk Management

Loughborough University, Loughborough, Leicestershire, LE11 3TU

Tel: +44 (0)1509 222175

Fax: +44 (0)1509 223991

e: J.G.Bostock@lboro.ac.uk

www.lboro.ac.uk/departments/CHARM/charm.html

Health & Safety Management; Waste Management; Healthcare Risk Management; Backcare Management; Industrial and Commercial Security.

College of Petroleum and Energy Studies

52 New Inn Hall Street, Oxford, OX1 2QD, UK

Tel: +44 (0)1865 250521

Fax: +44 (0)1865 791474

e: registrar@colpet.ac.uk

www.colpet.ac.uk

Supply & trading, international oil, gas, petrochemical and energy short and long courses, bunkering, tanker ownership, chartering & operations, petrol retail and lubricants.

Construction Industry Training Board

Bircham Newton, Kings Lynn, Norfolk, PE31 6RH, UK

Tel: +44 (0)1485 577577

Fax: +44 (0)1485 577689

www.citb.org.uk

Cordah

Unit C Kettock Lodge, Aberdeen Science & Technology Park, Aberdeen, AB22 8GU, UK

Tel: +44 (0)1224 414200

Fax: +44 (0)1224 414250

e: main@cordah.co.uk

www.cordah.co.uk

Provides research, consultancy, technical and training services. Courses on Environmental Risk Management (in association with the IP).



Corrosion Engineering Consultancy

15 The Close, Hampstead Norreys, Newbury, Berks, RG8 0RY, UK
e: Cbrit79727@aol.com

Training courses available include Corrosion Basics; Corrosion in the Oil and Gas Industry and Corrosion Monitoring and Inspection. Courses provides in-house for companies and organisations.

Cranfield University

Cranfield, Bedford, MK43 0AL, UK

Tel: +44 (0)1234 750111

Fax: +44 (0)1234 751206

e: shortcourse@cranfield.ac.uk www.cranfield.ac.uk

Courses on Safety; Corrosion; Underwater Engineering; Pipelines; Maintenance.

DataCad Ltd

Beckett House, Caird Street, Hamilton, ML3 0AL, UK

Tel: +44 (0)1698 543040

Fax: +44 (0)1698 543041

e: peter.turnbull@ifigroupplc.com

www.datacad.co.uk

Providers on company and discipline specific training solutions.

Defence Evaluation and Research Agency (DERA)

Fuels and Lubricants Centre, Building 442, DERA Pystock, Farnborough, Hants, GU14 0LS, UK

Tel: +44 (0)1252 374772

Fax: +44 (0)1252 374791

e: pcarberry@dera.gov.uk www.dera.gov.uk
 Courses on Aviation Jet Fuel (AV), (in association with the IP).

De Montfort University

Department of Chemistry and Physics, De Montfort University,
 The Gateway, Leicester, LE1 9BH, UK
 Tel: +44 (0)116 257 7698 Fax: +44 (0)116 257 7287
 e: sjd@dmu.ac.uk www.dmu.ac.uk
 Offers Postgraduate Certificate/Postgraduate Diploma/MSc in
 Lubricant & Hydraulic Technology.

Downhole Technology Ltd

Offshore Technology Park, Exploration Drive, Bridge of Don,
 Aberdeen, AB23 8GX
 Tel: +44 (0)1224 828484 Fax: +44 (0)1224 826458
 e: downholetechnology@compuserve.com
 An independent, open access facility for training personnel
 and developing, testing and demonstrating new drilling and
 downhole equipment and techniques

École Nationale Supérieure de Petrole et des Moteurs Formation Industrielle (ENSPM)

232 Avenue Napoleon Bonaparte, 92852 Rueil – Malmaison,
 Cedex, France
 Tel: +33 1 47 52 71 06 Fax: +33 1 47 52 70 41
 e: bernard.lery@enspmf.com www.ifp.fr/enspmf
 Economics & Management; Exploration; Drilling; Production;
 Refining; Equipment; Maintenance.

Edinburgh Telford College

Crewe Toll, Edinburgh, EH4 2NZ, UK
 Tel: +44 (0)131 332 2491 Fax: +44 (0)131 343 1218
 e: mail@ed-coll.ac.uk www.ed-coll.ac.uk
 Measurement Technology; Computing; Programmable
 Systems; Pneumatics and Hydraulics; Electricity; Electro-
 Magnetism; Mathematics.

Engineering & Marine Training Authority

EMTA House, 14 Upton Road, Watford, Hertfordshire, WD1
 7EP, UK
 Tel: 0800 282167 (UK only); +44 (0)1923 238 441
 Fax: +44 (0)1923 256086
 e: ecis@emta.org.uk www.emta.org.

Environment & Resources Technology Ltd (ERT)

Research Avenue 1, Heriot-Watt University, Edinburgh, EH14
 4AP, UK
 Tel: +44 (0)131 449 5030 Fax: +44 (0)131 449 5037
 e: Ingeborg.McNicoll@ert.co.uk www.ert.co.uk
 Provides environmental and scientific services and consultancy
 to industry, government and government agencies. Technical
 areas include: Environmental Management; Oil Spill Studies;
 Waste Management; Environmental Survey and Monitoring;
 Consent and Compliance Support.

* Fire Service College

Moreton-in-Marsh, Gloucestershire, GL56 0RH, UK
 Tel: +44 (0)1608 650831 Fax: +44 (0)1608 651839
 e: enquiries@fireservicecollege.ac.uk
www.fireservicecollege.ac.uk
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Securing a future for upstream oil and gas

Much has been said about the challenging future for the oil and gas industry given the prospect of reduced oil demand and the maturing nature of the UK Continental Shelf. Against this background, the UK Oil and Gas Industry Task Force (OGITF) worked during 1999 to draw up short, medium and long-term objectives and actions for UK Government and industry to achieve together. *John Ramsay*, Chief Executive, OPITO (Offshore Petroleum Industry Training Organisation), reports on how work is progressing.



Pilot, the successor body to the Task Force is continuing the work to retain the UKCS as an active centre for oil and gas exploration, development and production. The Pilot initiative recognises that a vital component in securing the industry's future is a highly skilled, well trained and motivated work force.

A central recommendation of the skills and training work group set up by the Oil and Gas Industry Task Force was to establish a National Training Organisation (NTO) group to serve all sectors of the upstream oil and gas industry. The group comprises:

- Engineering Construction Industry Training Board (ECITB),
- Engineering and Marine Training Authority (EMTA),
- National Electrotechnical Training (NET),
- Offshore Petroleum Industry Training Organisation (OPITO), the NTO for oil and gas extraction.

The NTO group comprises the Chief Executives of the member NTOs, together with senior industry members and UK Government representatives.

What skills are needed?

To properly inform the Lifelong Learning debate it is important to have a clear picture of the skills needs of the whole industry. A survey was undertaken to provide labour market information

while a 'Skills Foresight' report focused on labour market demographics and how working practices and changing technologies will impact on skills.

The analysis was based on a survey of 927 companies in the UK oil and gas industry. The participating companies employ almost 105,000 staff and contractors. Given current estimates of some 300,000 employees in the industry, the survey analysis covers one-third of the industry's employment base.

The study reveals that the UK oil and gas industry faces considerable recruitment difficulties – even after the recent downturn in the levels of activity. Managerial, technical and engineering staff presents the greatest recruitment difficulty to the industry, with both relevant skills and qualification reported to be in short supply.

Some sectors of the industry display age profiles that are strongly skewed to older workers and this provides a real challenge given that other research has indicated that young people do not see the oil and gas industry as an attractive career prospect.

The survey also examined companies' commitment to training. A significant number of companies in industry failed to provide regular training, while others only train a small selection of their employees with contracted employees least likely to receive training.

The main reasons for reluctance to increase the provision of training

relates to cost plus an inability to see the benefits of training.

Forsight findings

The skills and employment foresight analysis has brought a number of reported findings to light. While unanimity is not found there is a sufficient degree of convergence to draw out some fundamental recommendations.

- Significant efforts will need to be made to tailor training and development to the needs of both large and small employers. Small firms will need to be particularly encouraged to train their employees.
- A strong collaboration between the industry and training institutions will need to be developed. The survey analysis supports the conclusion drawn in the Oil and Gas Industry Task Force report that the development of the necessary technological skills can only be brought about by creating and maintaining an environment for enhanced collaboration.
- As the Task Force's Innovation and Technology Group (ITG) has indicated the effective exploitation of new technology will be of a paramount importance. Innovative ways to tackle recruitment difficulties thus merit particular attention in the areas of engineering, technical and managerial skill development. At present, current job applicants and their skills and qualification portfolios fail to meet the needs of employers. 'Job ready' graduates are needed who can manage and work with people as well as machines.
- The industry's demographic development justifies a renewed recruitment drive to attract young individuals. At the same time the concept of lifelong learning will need to be supported throughout the industry, not least to provide a pool of skilled trainers who could be encouraged to continue in work beyond the traditional retirement age.
- Above all, flexibility is required in an industry that has tried to predict and react to changes in the oil price rather than develop and maintain a pool of skilled and highly adaptable individuals.

The Skills Foresight Report provides an opportunity for the industry to engage in an informed debate about the future strategy for skills and training. The report is not an end in itself and needs to be seen as the beginning of a structured plan to meet the industry's future needs. Failure to act may threaten the industry's ability to deliver the vision for 2010. ●

A lifetime of learning

Tom Odell, a member of the Institute of Petroleum's NorthEast Branch, perfectly embodies the concept of lifetime learning having recently graduated with a MSc in computing from the University of Northumbria at the age of 60.

I became part of the industry's down-sizing fallout in 1997. However, after 19 years in the North Sea with one of the majors, I looked forward to avoiding regularly attending courses on specialist equipment, the intricacies of electrical equipment in hazardous areas and those most masochistic of delights – fire fighting and sea survival. Having also completed a BA and BSc (Hons) with The Open University, a 'study break' was welcome!

I embarked on revamping a new home and decided to look for work of a type that would interest me. At 58, I knew the odds were against me. I used my many contacts to network my way around the world, but found that the oil world was changing fast. In addition, just as potential jobs started to appear in the Far East, their economies collapsed – and the job opportunities died.

Knowledge gap

Having revamped the home, in 1998 I decided to reassess my future. The oil industry appeared to hold little for me in the short term – so what should I do?

As an electrical apprentice many years ago, transistors were a mystery. Each course I went on over the years increased my knowledge, but a gap always remained. Then, what I can only describe as a continuous explosion happened – microchips, PLCs, PCs, etc, appeared and were associated with just about every piece of equipment I was involved. The knowledge gap became a chasm. Perhaps now was the time to play catch up?

Life skills important

Since leaving school at 15 I had always undertaken part-time or distance learning. With my wife's support, I applied for, and gained, a full-time place at the University of Northumbria at Newcastle on a one-year MSc computing course.

The workload was heavy. The learning curve was even steeper – I could not hope to absorb information as quickly as a 25-year old! However, drawing upon life skills proved to be my saviour. Working in an environment where there was never enough time had taught me the importance of pri-



oritising. I knew not to be afraid of admitting ignorance and seeking out whoever could help. Nor did inflated egos and 'jobsworths' intimidate – it was merely a case of stroking or ignoring them as required.

I was also well aware that large organisations operate strange systems. Therefore, handbooks were read when given and when the system demanded X copies of a form at a specific time, I knew to provide them. I also ensured the forms were pre-completed, with only the date to add – from experience I was well aware that the forms might not be there when actually needed. I also understood the need to give advance warning of any potential problems – not dropping them in someone's lap at the last moment – and the importance of deadlines and, worse, failure to deliver, when working as part of a team. I also knew how to apply pressure – as one youngster put it: 'You look at me just like my Father!'

Learning never ends...

With the benefit of years of experience, we all know that life is strange and to expect the unexpected. For example, I was offered three jobs – but only well after accepting my place at Northumbria!

Having now graduated at age 60, I am contemplating a number of ventures. There is a problem, however. I have become conscious of a knowledge gap – do I need yet another course or training? ●

First step on the road to Lifetime Learning

The Institute of Petroleum awards prizes to outstanding students studying Masters' courses appropriate to the oil and gas industry. As usual, the past year has produced a very high standard for which the IP was honoured to make the awards. *Gill Haben*, IP Education and Training Manager, reports.

The annual IP Student Prizes comprise a cash sum, a three-year membership of the Institute of Petroleum and a framed certificate. Where possible, we like to hold an award ceremony to celebrate the achievement of the students and to introduce them to the Institute and our Branches.

The winners of the 1999 IP Student Prize Winners were:

John Horsburgh – John gained a MSc in Petroleum Geology from Aberdeen University. He was presented with his prize at Grangemouth refinery by John Williams, the Chair of the Edinburgh & South East Scotland Branch and General Manager of Grangemouth refinery. Our prize-winner has just returned from a three-month, dream trip to Australia and New Zealand – a well deserved holiday!

David Wright – David was awarded an IP prize for his MSc in Geophysics from Durham University. George Bailey, the Chair of the Institute's Northeast Branch, made the presentation at Durham Castle.

Kevin Whaley – Kevin received his MEng in Petroleum Engineering from Heriot-Watt University. The prospect of work-related travel meant Kevin had to decline the offer of a formal award presentation. However, he did have the opportunity to tell me that after graduating from the University of Glasgow in 1993 with



a First Class Honours degree in Civil Engineering and working for five years in the Water/Geotechnical Engineering Department of multi-disciplinary consultancy Babbie Group – during which time he obtained Chartered Status – he felt that he 'needed to alter the direction' of his career towards 'a discipline that would allow him greater involvement in subsurface engineering and geology'. He gained his MEng degree in Petroleum Engineering with distinction and is now employed as a Petroleum Engineer with BP Amoco in Aberdeen.

Miguel Jakymec – Miguel gained an MSc in Petroleum Engineering with the Royal School of Mines, Imperial College of Science, Technology and Medicine. He had to hotfoot it back to South America after receiving his award, but had the chance before he went to explain how the concept of Lifetime Learning had impacted his career path to date.

Miguel started working in the process simulation and design division of Venezuelan state oil company PdVSA after graduating from Zulia University with a First Class Honours degree in Chemical Engineering. According to Miguel, the company focuses heavily on the training of its young recruits in order to develop their skills and to capture the best practices and technologies for augmenting hydrocarbon reservoir life and value. As part of this programme, Miguel joined Imperial College in 1999, and subsequently graduated as the top student in his class after completing an internship with Enterprise Oil. He has now rejoined PdVSA as a Reservoir Engineer. His new job involves the study and proposal of

new technologies to optimise oil field recovery and company profits. He states that the experience gained while obtaining his MSc has given him a 'better perspective of the company's development.'

Miguel plans to continue his studies and to obtain a PhD in the future. 'This industry is very challenging,' he says. 'I like the way that everything changes every day, so that an engineer must be in a very dynamic position to let new ideas flow into his mind and then apply them.'

Madeleine Bry – Madeleine studied at Imperial College for a MSc in Petroleum Geoscience. Jeff Pym, IP Director General, and myself were delighted to meet her when we were invited to Imperial College to take part in the examination announcement ceremony. Jeff took the opportunity to acknowledge the hard work of both Madeleine and all the students, and went on to give them a comprehensive overview of the industry and the benefits of being a member of the Institute of Petroleum.

Nicholas Pink – Nicholas won the IP prize for environmental related studies – a new award introduced for the first time in 1999. He received an MSc in Petroleum Engineering – Environmental from Imperial College. Nick, who has already embarked on a career in the industry, provided me with an intriguing insight into a student's perceptions of the oil and gas sector:



'The first perception I had of the oil industry was how hard it was to find a job! Hopes of being awash with job offers from around the world had dissipated due to low oil prices and the glut of mergers taking place – throughout 1998-99, the careers notice board was bare save for a few academic opportunities. However, prospects then improved and October 1999 found me in employment as a Petroleum Engineer. The work is varied. I have already been in contact with companies from all over the world and am hoping to be 'let out' on some well tests abroad soon.'

'Now that the oil price appears to have reached a steady state, I feel confident that I can experience enough of the industry to support me if the price drops again and redundancies follow. My prevailing perception of reality is that oil jobs are transient, but experienced and skilled people will always find work.'

'As for my contemporaries in the class of 1998-99, a few are still on holiday. However, around 70% of us now have jobs and we have a global contacts list - very handy if circumstances change in the future!'

Francesco Beltrami -

Francesco came through with a PgD/MSc in Offshore Engineering from Robert Gordon University. He had to dash straight over to Italy to take up an appointment as a Project Manager with ECIS, an Italian company that designs and supplies systems for offshore and onshore installations, and was unable to attend a formal award ceremony. However, he did have the chance to tell me of his background, study and aspirations for the future before he went and it is interesting to note in the light of his comments that, even though 1999 was a difficult year for the industry, there is still the perception that excellent qualifications coupled with drive will pay dividends.



The Tony Fox Memorial Award was made to **Michael Rogerson**. The award commemorates the life of the late A F Fox MBE, ARSM, BSc, FGS, FirstPet for his great contribution to the Institute of Petroleum. The award went to Michael who is studying for a MSc in Petroleum Geology at Imperial.

The road ahead

I have asked our new Student Members to keep in touch in order to follow what will surely be successful careers. I have also encouraged them to take full advantage of the services offered by the IP as, although they should take the time to bask in their glory, this is the successful end of the first stage on their journey of Lifetime Learning. ●

Right: Jeff Pym, IP Director General presented the Tony Fox Memorial Award to Micheal Rogerson at the IP offices in New Cavendish Street, London. (l-r) Professor Ala, Imperial College; Jeff Pym; Gill Haben; Michael Rogerson; Douglas Hobson (IP Award Committee); and Geoff Pryke (IP Award Committee).

Playing on the right team

Colin Black is a Committee Member of the Aberdeen Branch of the Institute of Petroleum and an active Lifetime Learning practitioner. Here he outlines the role of Lifetime Learning in developing team working.

As part of the research for my recently completed MSc in Management at Robert Gordon University, Aberdeen, I identified the IP Lifetime Learning workbook and plan (see p11) as having an important part to play in personnel development. My dissertation, *Team Working - Managers' Roles and Organisational Structures*, indicated that managers can, and often do, block the implementation of team working. The idea of a 'self-managed team', delayering of organisational structures and the removal of line management positions, have left many managers considering their future.

For a company to become a team-based working organisation there needs to be senior management commitment, support from a competent team-working development consultant and the creation of a 'true' management team.

Research established that within a team environment it is often the manager who has to change most. Team managers move from traditional front-line operational roles, towards a more strategic development and supporting position. The IP Lifetime Learning



workbook provides a focus on personal strengths and areas for development. The IP Lifetime Learning plan can then be created to map out personal development goals and objectives.

This significant resource material is designed to be suitable for all employees. However, managers who focus on leading and enabling their team become highly effective. This then creates a culture that empowers and develops people, yet also respects them as individuals. ●

