Certificate of Professional Development in Radiation Protection

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DISTANCE LEARNING COURSE IN RADIATION PROTECTION

This course has been developed by the Centre for Lifelong Learning at the University of Strathclyde and the Association of University Radiation Protection Officers (AURPO) in collaboration with the Health and Safety Executive (HSE) and RPA 2000.

been an RPA for over 30 years **Brief overview of** and is jointly responsible for the course material. He is the syllabus presenting author at IRPA 13.

Unit 1 - Basis of Radiation Protection: basis of radiation protection standards; ICRP principles – justification, optimisation, dose limitation.

Unit 2 - Basic Atomic Physics and Radiation Biology: basic atomic and nuclear physics; basic biology; interaction of radiation with matter; biological effects of radiation; quantities and units.

The course started in 2002, originally to assist university RPAs to get accreditation and 41 took the course in the first year. Intake has since settled down to an average of around 20 students/year and students now come from a variety of backgrounds – university sector, medical physics, nuclear sector and general industry. The course is widely recognised as providing valuable training for those wishing to attain greater knowledge and understanding of radiation protection matters and has attracted students from Australia, India, Middle East, USA, Ireland and Africa as well as from the UK.

The course is currently benchmarked against the HSE criteria for the 'Core of Knowledge' required for a Radiation Protection Adviser. It is being further developed to ensure that it also fully covers the Environment Agencies syllabus for a Radioactive Waste Adviser (RWA).

Unit 3 - Detection and Measurement of Ra*diation*: detection and measurement methods; monitoring – area, personal dosimetry (external, real time and external), biological.

regulatory basis; internal recommendations/ conventions; European Union legislation; IRR99; other relevant health and safety legislation.

Unit 5 - Sources of Radiation, Practices and Interventions: sealed sources and associated practices; unsealed sources and practices; Xray sources and practices; other sources and practices; interventions (including natural radiation, especially radon).

Unit 6 - Control of Exposure: operational radiation protection; hazard and risk assessment; minimisation of risk; control of releases; critical dose concept/dose calculation for critical group; ergonomics; operating rules and contingency planning; emergency procedures; remedial action/decontamination; analysis of past incidents including experience feedback.

Unit 7 - Organisation of Radiation Protection: role of qualified experts; safety culture; communication skills; record keeping; permits to Graham Hills Building work and other authorisations; designation of 40 George Street areas and classification of workers; quality Glasgow, G1 1QE. control/auditing; dealing with contractors.

This course has been designed to allow students to study by Unit 4 - Health & Safety Legislation: legal and distance learning through the use of text-based course content with online tutor support (all accredited RPAs) via the University's new unified virtual learning environment myplace. A series of 8 units are released in stages over a period of 6 months and cover the following 8 topic areas: basis of radiation protection; basic atomic physics and biology; detection and measurement of radiation; health and safety legislation; sources of radiation, practices and interventions; control of exposure; organization of radiation protection; management of radioactive materials and waste disposal. Student progress is assessed by various Unit-based activities and five 2000-word assignments completed at the end of the study period.

> Successful completion of the course will merit the award of a Certificate of Professional Development in Radiation Protection from the University of Strathclyde.

Local Contact

Brian McKechnie Centre for Lifelong Learning University of Strathclyde

Unit 8 - Management of Radioactive Materi-Tel: 0141 548 4828 als and Waste Disposal: the Radioactive Fax: 0141 553 1270 Waste Adviser, registration of practices (and E-mail: <u>scosh@strath.ac.uk</u> exemptions); waste management – principles of management, principles of disposal, optimiza- Web: http://www.strath.ac.uk/scosh tion techniques (BAT), environmental monitoring and waste assay; security of radioactive materials; transport (including exemptions); nuclear safeguards.





In many departments, existing staff and postgraduates may already have received relevant training and workstation assessment from DSE Assessors and Trainers within their departments. If so, there is no need for them to do this training and assessment unless they want to or unless there is a need for **re-assessment of workstations following changes to location or orientation of the workstation or installation of new display screen equipment.** The online package can be found on Safety Services website or by clicking <u>here.</u>

