

Building and Sustaining Capacity in Security of Radioactive Sources:

The contribution of the
Higher Education Sector to capacity building

Dr Chris Englefield CRadP FSRP
Honorary Research Fellow

Great careers start here...
www.cumbria.ac.uk

UNIVERSITY of 
Cumbria

Agenda



- The advert: The University of Cumbria (UoC)
- Why can UoC contribute?
- New: MSc in Nuclear Security Management
- Issues
- Conclusions and an invitation

Great careers start here ...
www.cumbria.ac.uk

UNIVERSITY of
Cumbria 

The Advert: University of Cumbria (UoC)



- A new university (2007), but a long history in higher education
- Campuses in NW of England – The English Lake District & Lancashire
- Strong links to the UK Nuclear Industry (e.g. The Energy Coast, NDA)
- Building own capacity in remote learning – extensive simulation
- Specialised in vocational training: very multi-disciplinary
- An existing Foundation Degree / BSc in Radiation Protection
 - The only UK under-graduate course in the UK in Radiation Protection
 - Includes a module on security (1 week)

Great careers start here ...

www.cumbria.ac.uk

UNIVERSITY of
Cumbria

The University of Cumbria logo, featuring a stylized green leaf with three veins, positioned above the word 'Cumbria'.

Why can UoC contribute?



Building on the existing BSc in Radiation Protection:

- Created to meet a UK need for more RP specialists
- Modular approach (1 week in class; 5 weeks coursework; x4 per year)
- Well developed network of contacts across the profession
- Supported by the Society for Radiological Protection
 - “Tie in” to professional recognition
- Links to the regulator of radioactive source security in England & Wales
- Strong vocational emphasis
- Use of remote learning methods: suitable for overseas students

New: MSc in Nuclear Security Management



- To be based on IAEA Nuclear Security Series 12 (with permission)
 - “Education Programme in Nuclear Security” (2010)
- “Nuclear” means: all things radioactive
- Security of nuclear sites
- Security of radioactive sources
- To develop an in-depth knowledge for staff already in the industry
- To include:
 - basic RP; security engineering; law; what needs to be protected;
 - criminology & forensics; management
- Certificate level will be an option
- Market research has been done (RP Practitioners +)

Great careers start here ...

www.cumbria.ac.uk

Issues



- This is new for all of us: integration of security components into education and training for radiation protection professionals (and others)
- Security – how to train students in a potentially sensitive area
 - Open source information
 - Simulations
 - Extensive use of technology
- Meeting the needs of students and employers
 - Balancing the need for contact time with cost and the use of remote learning
- Validation – ensuring excellence in a new subject
- Cohort size – not going to be huge (10 -20 per annum?)
- Use of visiting professors and lecturers from the industry

Conclusions



- Post-graduate education in Nuclear Security Management to meet a business need
- Build on other courses
- Thank goodness for Nuclear Security Series 12 (and the rest!)
- IAEA recognise the value to global capacity building
- One way to develop sustainability
- Plan to start October 2013

- Expressions of interest (contributions; students; other) welcome

Chris.inglefield@cumbria.ac.uk

Great careers start here ...

www.cumbria.ac.uk

UNIVERSITY of
Cumbria

The University of Cumbria logo, featuring the text "UNIVERSITY of Cumbria" and a stylized green leaf icon above the word "Cumbria".



Thank you—any questions?

Great careers start here ...

www.cumbria.ac.uk

UNIVERSITY of 
Cumbria