

Specialised module for the RPE



RPE for the Medical Sector

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Athens, September 2015

DISCLAIMER:





- Objectives
- Learning outcomes (KSA)
- Face to face course & examination
- Credits
- Venue





- Deliver competences that a Radiation Protection Expert (RPE) in the medical sector requires to comply with Council Directive 2013/59/Euratom (BSS).
- Advise the hospital on controlled and supervised areas (BSS Art. 37 & 38).
- Provide advice on the following (BSS Art. 34):
 - (a) examination and testing of protective devices and measuring instruments;
 - (b) prior critical review of plans;
 - (c) acceptance of new or modified radiation sources;
 - (d) regular checking of the effectiveness of protective devices and techniques;
 - (e) regular calibration of measuring instruments and checking they are correctly used.





- ensure doses are kept ALARA;
- regulatory framework;
- measurement techniques;
- calculation of exposures;
- hazard and risk assessments;
- control procedures (including zoning);
- personal and environmental dosimetry.



- application of regulations and standards;
- radiation protection policies and procedures;
- advise on RP aspects in all hospital environments;
- designate radiation areas;
- calculate and design radiation protection shielding;
- produce prior risk assessments;
- select appropriate monitoring instruments;
- audit and advise on radiation safety;
- provide dynamic risk assessments;
- conduct RP related research.



Demonstrate attitudes required of an RPE

- provide competent advice
- appreciate the impact of radiation protection advice
- promote a positive safety culture.



European Network on Education and Training in Radiological Protection



Module courses and sub-courses

Course 7.1	Medical workplace study
26	Apply the principles of operational radiation protection in medicine
26.1	Carry out work place study
26.2	Conduct a risk analysis (all types)
26.3	Perform staff training
26.4	Participate in the design of new activities
26.5	Analyse new situation of occupational exposure (exposed workers or not) in the case of new techniques (i.e. Samarium combined with dialysis of an injected patient)
26.6	Manage solid/liquid and gaseous waste
Course 7.2	Hospital organisation and RP roles and duties
27	Know the organisation of the hospital (local) and relationship with the head of the establishment
27.1	Advise the hospital security (security guard) in case of fire in relation to the presence of radioactive sources
27.2	Advise on the intervention of Technical Services (i.e. clogged toilets and presence of I131)
27.3	Know all personnel involved directly and indirectly with ionising radiation sources
27.4	Manage relations with the occupational medicine service
27.5	Manage personal dosimetry service and dose recording procedure
27.6	Manage radiation accidents and incident
Course 7.3	Stakeholders interactions
28	Manage the interaction with stakeholders
28.1	Manage relationships with the regulatory body
28.2	Manage the authorisation to possess radioactive sources
28.3	Manage the declaration statements to possess radioactive sources
28.4	Manage the changes of installation file
28.5	Manage records for the implementation of new technics / installation (e.g. for intraoperative breast cancer)
28.6	Adapt existing installation (or old) to changes in regulation
28.7	Manage relationships with an organisation's management
Course 7.4	Quality control and quality assurance in radiation protection in the medical sector
29	Quality Control/Quality Assurance and dosimetric assessment for radiation protection in the medical sector
29.1	Perform dosimetric quality control and quality assurance assessment of radiation protection equipment



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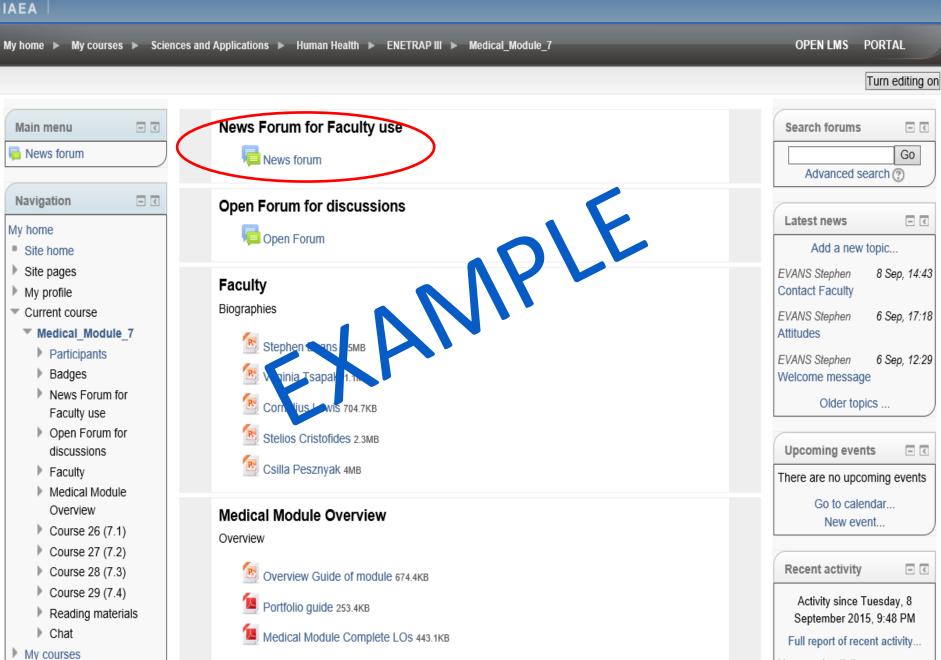


E-Learning Phase

- need to prepare 4 short (2500 word) portfolios
- learning guides to help prepare the portfolios
- faculty member available to help with queries
- each portfolio must demonstrate the knowledge
 (K), skills (S) and attitudes (A) of an RPE

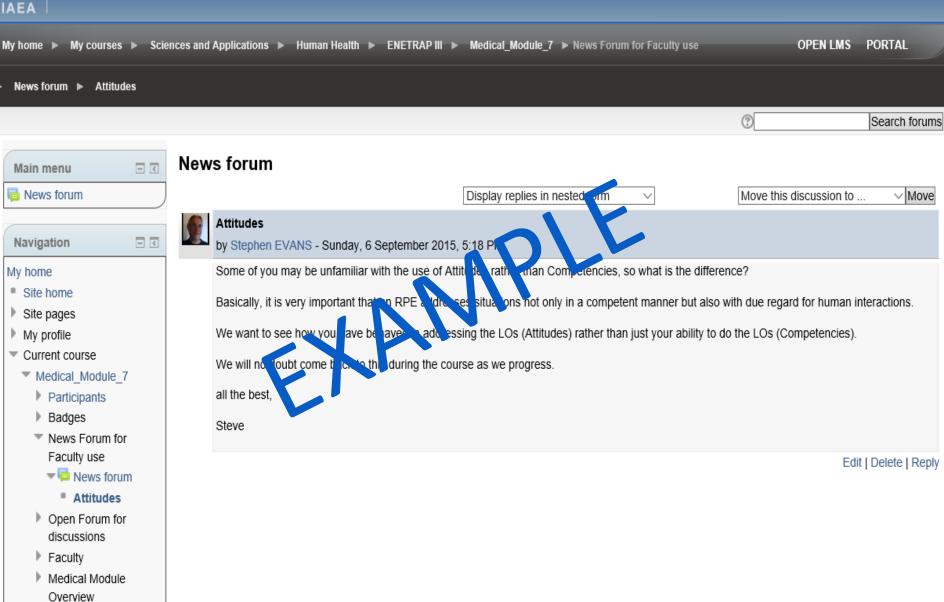
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Course 26 (7.1)
Course 27 (7.2)



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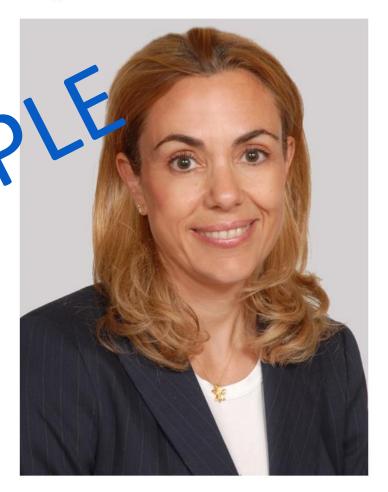


My name is Virginia Tsapaki

I was born in Athens, Greece in 1967.

I am married with 2 children. My oldest is a boy of 12 years and the youngest is a girl of 8.5 years.

I live in Athens with my family.



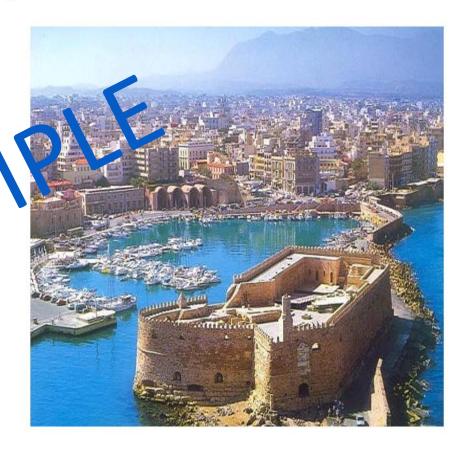


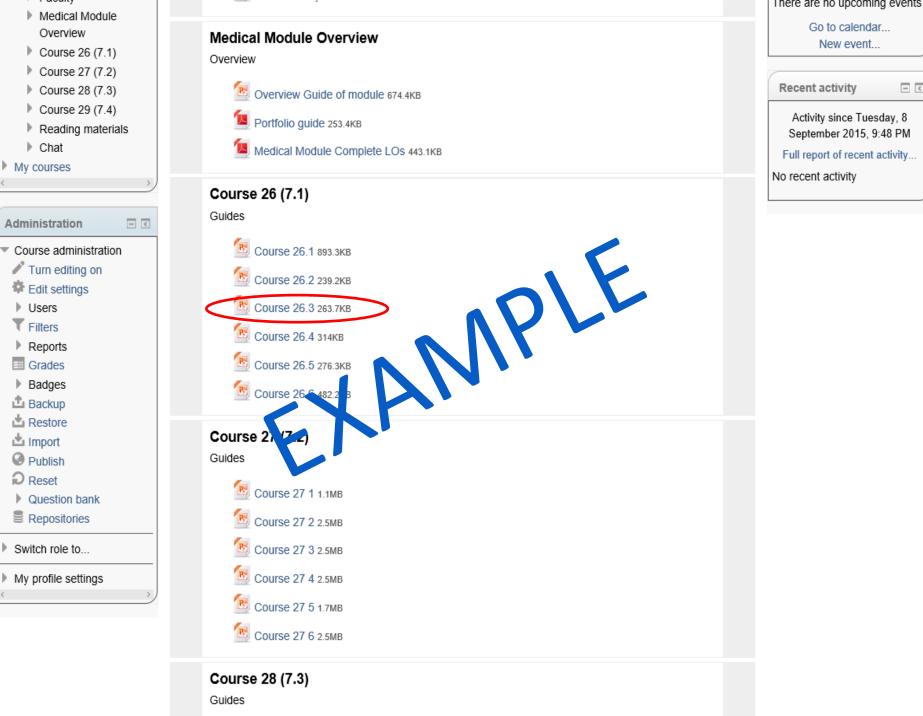


As a child and student

Most of my childhood I lived in the island of Creta in Greece, famous for the city of Knossos, the centre of Minoan civilisation and capital of Minoan Crete.

I studied at the University of Creta, Physics, the years 1985-1989. This is where I did my BSc. I liked astrophysics very much at that time.





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- < Recent activity Activity since Tuesday, 8

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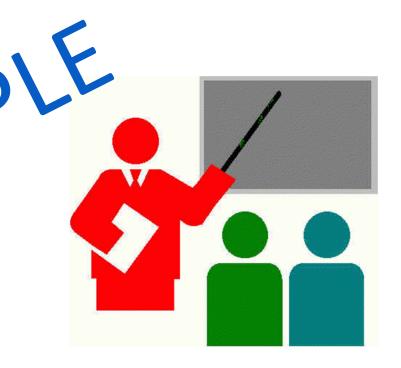


26.3 Attitude (Portfolio evidence)

LO A 26.3.1

Communicate effectively with staff

- You should show how your communication style engages staff to understand the need for a positive safety culture.
- You may be asked some questions on the talk you have provided at the face to face session.





Monday - Thursday	Apply the principles of operational radiation protection in medicine
Q1	Overview lectures
Q2	Portfolio reviews
Q3	Interactive tutorials
Q4	Scenario workshop
Friday	Module assessment
Q1	Q & A
Q2	Revision period
Q3	Portfolio oral assessments
Q4	Multiple Choice Exam



Overview lectures

DAY 1

- 1. Different detection, measurement techniques
- 2. Risk assessment, training and communication techniques

DAY 2

- 1. Personal dosimetry, and occupational medicine services
- 2. Management of radiation accidents and incidents

DAY 3

- 1. The legal obligations of an organisation's management
- 2. Interaction with stakeholders

DAY 4

1. Overview of QC for the RPE



Portfolio Reviews

DAY 1

1. Medical workplace study

DAY 2

1. Hospital organisation and RP roles and duties

DAY 3

1. Stakeholders interactions

DAY 4

 Quality control and quality assurance in radiation protection in the medical sector



Interactive tutorials

DAY 1

1. Complex shielding calculations

DAY 2

1. How radiation protection works in your hospital

DAY 3

- 1. Equipment life cycle
- 2. Requirements for bidding contracts

DAY 4

1. Complex QC problems



Scenario Workshops

DAY 1

1. Difficult communications with patients and staff

DAY 2

1. Control of high level emergency event

DAY 3

1. Radioactive waste disposal management

DAY 4

1. Liaison with the MPE





- Portfolios (Skills and Attitudes)
 - discussed in the face-to-face session (20 mins each)
 - Opportunities for improvements
 - Oral assessment
- Multiple Choice Examination (Knowledge)
- 70% pass mark
- Must pass all 4 courses to pass the Medical Module





- European Credit Transfer and Accumulation System ECTS
 - one academic year equals 60 ECTS credits equivalent to 1500–1800 hours of study
 - Each course 40 h (nominal 1.5 credit points)
- European Credit system for Vocational Education and Training – ECVET
 - Links higher education with vocational education and training and Life Long Learning
- EFOMP
 - CPD requested



"Participants will gain the knowledge skills and attitudes to provide expert radiation protection advice to employers, staff and members of the public to allow him or her to seek the status of Radiation Protection Expert (RPE) from an authorised body in the medical fields of radiotherapy, diagnostic & interventional radiology and nuclear medicine following the recognition procedure of the respective Member State."



Face to Face Pilot Venue and Social Activities

- Budapest July 2016
 - University of Technology and Economics
 - Institute of Nuclear Technique
- Special rates for Accommodation
- Full social events too!





Budapest University of Technology and Economics



Institute of Nuclear Techniques





Meet the team



Stephen Evans



Stelios Christofides



Virginia Tsapaki



Cornelius Lewis Csilla Pesznyak



Houses of Parliament in Budapest



Bridges in Danube (Hungary)