

SPERANSA 2008 ERASMUS INTENSIVE COURSE

MOL – BRUSSELS (BELGIUM) Feb.24 – Mar 7 , 2008

Partners

Czech Technical University, Prague
Universitat Politecnica , Valencia
Politecnico di Milano
XIOS Diepenbeek
Fachhochschule Aachen, Jülich
ISIB, Brussels

Participants

Max. 24 students in engineering, Master level (Doctorate level admitted)

Subjects taught

Lectures : approx 6 h

The lectures will introduce the theoretical and regulatory aspects of the practical exercises

Practical exercises with safety and/or radiation hygiene analysis : approx. 45 h

The exercise list includes :

In Mol and Geel :

- reactor operation
- accelerator operation and applications
- hot cell operations on radioactive material
- radiation emergency

In Brussels

- X-rays non-medical applications
- neutron measurements
- decontamination exercise
- indoor and soil radon measurements
- TL dosimetry
- quality control and patient protection in nuclear medicine and radiotherapy
- control of environmental radioactivity

Each student will participate to several but not all exercises.

Visits : approx. 6 h

- visits with demonstrations are foreseen for some facilities where a direct operation by the students is not possible: underground radwaste laboratory, radwaste treatment facility

Round tables: approx. 6 h

Round table discussions will be organized on the topics:

- ethical aspects of radiological and nuclear safety
- nuclear/radiological techniques and safety for sustainable development
- synthesis and evaluation of the course

Day/Time	Sunday 24 Feb	Monday 25 Feb	Tuesday 26 Feb	Wednesday 27 Feb.	Thursday 28 Feb	Friday 29 Feb	Saturday 1 Mar
9:00-12:30	Arrival in Mol Welcome reception	8:45 meeting at SCK-CEN gate 9:15 Presentation of the partners, 5' each 9:45 Presentation of SCK-CEN 15' 10:00 Presentation of the organization of the course 10:30 Break 10:45 Lecture 1 11:30 Lecture 2	Parallel exercises At SCK-CEN 3 groups Cntd	Parallel exercises At SCK-CEN 3 groups Cntd	Drive to JRC-IRMM Geel Introductory talk Parallel exercises 3 groups	8:45 meeting at Belgoprocess gate 9:00 Visit: Radwaste treatment facility Belgoprocess in Dessel	Visit of Brussels
12:30-13:30		Lunch	Lunch	Lunch	Lunch	Lunch	
13:30-17:00		Visits in SCK-CEN In 2 groups	Round Table: Ethical Aspects of radiological safety	Parallel exercises At SCK-CEN 3 groups Cntd	Parallel exercises 3 groups Cntd.	Transfer to Brussels	
17:00-18:30 19:30					Course Dinner		

Day/Time	Sunday 2 Mar	Monday 3 Mar.	Tuesday 4 Mar.	Wednesday 5 Mar.	Thursday 6 Mar.	Friday 7 Mar	Saturday 8 Mar
8:30-9:15 9:30 – 12:30	Free	Lecture 3 Experiments ISIB 6 groups	Lecture 4 Experiments ISIB 6 groups	Lecture 5 Experiments ISIB 6 groups	Preparation of the presentations	Presentation of results by the students Round Table: Discussion of Results, Evaluation	Departure
12:30-13:30		Lunch	Lunch	Lunch	Lunch	Lunch	
13:30-16:30 19:30		Experiment ext. 3 groups Radiotherapy Nuclear medicine Environmental lab.	Round table: Nuclear techniques and sustainable development	Experiment ext 3 groups Radiotherapy Nuclear medicine Environmental lab.	Preparation of the presentations Course dinner	Round Table cont.: Synthesis Closing Ceremony Departure	

The dates indicated and the day of each activity are provisional, and might be adapted according to the constraints of the partners and of the cooperating institutions