



Objectives

The course is aimed to provide an introductory course on the development, implementation, and testing of risk communications concerning ionizing radiation, with a particular focus on medical imaging.

With this course students are expected to:

- Understand differences between how experts and non-experts (laypeople) evaluate risks to themselves and to others.
- Learn basic principles, methods and techniques on why and how to collect scientific evidence from experts and non-experts, to inform risk communications concerning ionizing radiation.
- Understand the importance of testing and evaluating communications, to ensure their effectiveness.
- Develop problem solving and planning competencies for developing risk communications concerning ionizing radiation, by applying the learning acquired to specific case studies/scenarios in medical imaging.

Target audience:

High priority applications: Early career researchers (e.g. post-docs) and PhD students.

Other applicants: Senior career researchers, practitioners, continuing professional education, master students.

Maximum Number of participants: **12**



Registration:

The registration is free of charge but approval is dependent on a successful application.

Key dates

June 28 – Applications deadline

July 4 – Decision on applications

July 28 – Deadline for registration

July 28 – Deadline for accommodation confirmation

September 4 to 12 – Course

Application procedure

Applicants should submit the documents below, to rgaspar@ucp.pt by June 30:

- Professional/academic CV
- A motivation letter;
- A supporting letter from an academic/professional supervisor (e.g. for Master/PhD candidates, this would be the supervisor)

Travel and accommodation

Accommodation will be offered by the organization but participants can also choose other places at their own expenses. Travel and other costs need to be covered by the participants themselves.

For additional travel support, please inquiry directly the PIANOFORTE partnership

<https://pianoforte-partnership.eu>

Programme content

- 1. Introduction to the Mental Models Approach to Risk Communications**
 - Experts vs. non-experts: From risk assessment to risk perception
 - Risk communication: From diverging views, to shared understandings
- 2. Introduction to ionising radiation.**
 - 2.1 Fundamentals and applications of ionising radiation.
 - 2.2 Biological effects of radiation.
 - 2.3 Environment radioactivity
 - 2.4 Nuclear and radiological emergencies
- 3. Experts' Mental Models – What do non-experts need to know, to make informed decisions?**
 - 3.1 Scientific evidence on ionising radiation use in medical imaging.
 - 3.2 Tools for scientific evidence synthesis.
- 4. Laypeople's Mental models – What do non-experts know and how do they make judgements and decisions?**
 - 4.1 Methods and techniques to collect evidence on knowledge, beliefs and attitudes of patients undergoing examinations with ionizing radiation
- 5. Risk communications: effectiveness and impact**
 - 5.1 Effective communication strategies and target audience engagement
 - 5.2 The role of randomized controlled trials in evaluating risk communications
- 6. Risk Communication in Medical Imaging**
 - 6.1 Patients' Rights and Duties, Informed Consent, Patient Anxiety, and Effective Educational Strategies.
 - 6.2 Risk communication with vulnerable populations – Case studies.

Course Format: Hybrid (online OR in person)

Location: Catholic University of Portugal, Lisbon.

