

HUMAN RISK ASSESSMENT

LEVEL: MASTER 1

PERIOD: SEMESTER 2

LANGUAGE: EN

ECTS: 3

TEACHER/COORDINATOR: JULIEN CASTELIN



1-Main objectives

- › Know the difference in meaning of the terms “hazard” and “risk”, the purpose and the four steps of risk assessment,
- › Know the most common routes for absorption of substances into the body,
- › Have an understanding of integrating the results of hazard identification, hazard characterization, and exposure assessment,
- › Be familiar with the problems in extrapolating the results of studies of the harmful effects of substances from animals to humans and know what are the main sources of hazard information on commercially available substances,
- › Understand the principles of exposure assessment,
- › Know some of the common approaches to minimizing risk,
- › Know how to progress from risk assessment to risk management.

2-Skills developed

Introduction to: human risk assessment concepts, risk calculation (from theory to practice), computerized models for assessment of contaminated land exposure

3-General content

Human risk assessment concepts:

- › Definitions: hazard, exposure, risk, dose-response, risk perception, risk communication, risk characterization...
- › How to carry out risk assessment? Risk assessment process
- › Sources of uncertainty in risk assessment
- › From risk assessment to risk management

4- Evaluation

- › Individual evaluation: written test about the lecture
- › Group evaluation: oral presentation (group project on a case study)

5- Program

- › Lecture
- › Examples: introduction to computerized models for human risk assessment
- › Practical (exercises on risk calculations)
- › Case study (group project of 3/4 students)