Linnæus University

Dnr: LNU-2025/1765

Course syllabus

Faculty of Health and Life Sciences
Department of Biology and Environmental Science

4MX319 Miljöriskkommunikation, 7,5 högskolepoäng
Environmental Risk Communication, 7.5 credits

Main field of study
Environmental Science

Subject
Environmental Science

Level
Second cycle

Progression
A1N

Date of Ratification
Approved 2025-06-30.
The course syllabus is valid from spring semester 2026.

Prerequisites
- Bachelor degree in science or engineering or the equivalent
- English 6
- Chemistry 15 credits,
or equivalent

Objectives

The course gives the student knowledge to choose and apply different communication tools for environmental risks from a scientific perspective.
Upon completion of the course, the student will be able to:

- in detail describe the concept of environmental risk communication;
- in detail describe risk perception and attitudes to environmental risks, and the

relationship between these two concepts;

- analyse the importance of attitudes connected to trust and credibility;
- discuss and analyse the role of media in environmental risk communication;
- discuss and suggest strategies for environmental risk communication within authorities, companies and organisations;
- apply ethical considerations;
- analyse the implementation of catastrophe and crisis management within authorities, companies and organisations,
- suggest how communication of uncertainty and risks in quantitative environmental risk assessments can be improved, and
- critically review from a scientific perspective and present and discuss the strengths and areas for improvement in others' work in an objective and constructive manner (peer review/opposition).

Content

- introduction to environmental risk communication
- concepts in risk communication
- risk communication in the risk analysis process
- risk perception
- the concept of attitude
- communication plan with audience analysis
- the importance of trust and credibility for the person who communicates risks
- communication channels sutible for environmental communication
- the role of media in risk communication
- to communicate uncertainty and risks in quantitative risk assessments
- research ethics

Type of Instruction

The teaching consists of lectures and seminars.

Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

Assessment is based on the student individually collecting data, writing, and presenting a report on an example of how environmental risks can be communicated. The presentation is both written and oral at the end of the course, worth 7 credits (U-VG).

Opposition of another student's report is included, worth 0.5 credits (U-G).
To receive a Pass for the course as a whole, all examined components must be approved. For a grade of Pass with Distinction, the report must also be assessed as Pass with Distinction.

Re-examinations are conducted in accordance with the Local Regulations for Courses and Examination at the Undergraduate and Graduate Level at Linnaeus University. In cases where a student with a disability is entitled to special educational support, the examiner decides on an adapted or alternative examination.

Course Evaluation

A course evaluation should be conducted during the course or in connection with its conclusion. The results and analysis of the completed course evaluation should be promptly communicated to students who have completed the course. Students participating in the next course instance should be informed of the results of the previous course evaluation and any improvements that have been made, no later than at the start of the course.

Overlap

The course cannot be included in a degree along with the following course/courses of which the content fully, or partly, corresponds to the content of this course:
4MX002, 4MX016, 4MX019, 4MX302, 4MX316, Miljöriskkommunikation 7,5 hp

Other Information

The course material is presented on a web study site.

Required Reading and Additional Study Material

Obligatory litterature
Lundgren, R.E. & McMakin, A.H (senaste upplagan) *Risk communication: a handbook for communicating environmental, safety, and health risks.* Wiley-IEEE Press, ca 450 s.

Rimal, R.N. & Real, K. (2003) *Perceived Risk and Efficacy Beliefs as Motivators of Change. Use of the Risk Perception Attitude (RPA) Framework to Understand Health Behaviours.* Human Communication Research, 29, 3, s. 370-399.

Williamson, J. & Weyman, A. (2005) *Review of the Public Perception of Risk, and Stakeholder Engagement*, HSL/2005/16. Health & Safety Laboratory, Buxton, 46 s.

Ytterligare artiklar och rapporter tillkommer (ca 100 s.).

Reference litterature
Cho, H., Reimer, T. & McComas, K. (senaste upplagan) *The SAGE handbook of risk communication*. Los Angeles: SAGE Publications, ca 370 s.

Granger Morgan, M., Fischoff, B., Bostrom, A. & Atman, C.J. (senaste upplagan) *Risk Communication. A Mental Models Approach*. Cambridge University Press. UK, ca 350 s.