

HUM-433

How people learn II

Tormey Roland

Cursus	Sem.	Type
Humanities and Social Sciences	MA2	Obl.

Language of teaching	English
Credits	3
Withdrawal	Unauthorized
Session	Summer
Semester	Spring
Exam	During the semester
Workload	90h
Weeks	14
Hours	3 weekly
Project	3 weekly
Number of positions	60

Il n'est pas autorisé de se retirer de cette matière après le délai d'inscription.

Summary

The students will understand the factors which affect learning - particularly in science and engineering. They will understand how cognitive and social factors influence what and how people learn and how they use what they learn.

Content

See the full description of the course in the Introduction to project of the fall semester.

Social and Cognitive Factors in Professional Learning

General Aim: To enable participants to understand the ways in which professionals learn their profession - with a particular focus on learning in scientific and engineering domains.

General Description of Material: The ability for individuals and organisations to learn is often regarded as central to their survival and success in the contemporary world. But how do professionals (like teachers, or engineers) learn their profession? What are the differences between how we learn (a) in initial training, (b) during the transition into work and (c) when an experienced professional?

Learning is partially a psychological concept, but professionals operate in social contexts and so an understanding of professional learning also draws on sociological research. Therefore understanding professional learning will involve a multi-disciplinary approach.

Plan of the course: Students will design a learning object in small teams. This will require carrying out a review of literature, completing empathy studies of potential users, and developing and testing prototypes. Inputs on design, data collection and analysis will be provided.

Keywords

Learning Sciences, Education, Social and Behavioural Science Research, Interdisciplinary Studies

Learning Prerequisites**Required courses**

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Learning Outcomes

By the end of the course, the student must be able to:

- Design in a team, an object that supports learning in a specified domain
- Search for relevant literature

- Interpret literature to generate ideas as to what should be designed and what its functions should be
- Conduct empathy studies and tests
- Analyze the evidence from empathy studies and prototype tests
- Assess / Evaluate the effectiveness of their design process

Transversal skills

- Plan and carry out activities in a way which makes optimal use of available time and other resources.
- Assess progress against the plan, and adapt the plan as appropriate.
- Set objectives and design an action plan to reach those objectives.
- Communicate effectively with professionals from other disciplines.
- Evaluate one's own performance in the team, receive and respond appropriately to feedback.
- Negotiate effectively within the group.
- Respect relevant legal guidelines and ethical codes for the profession.
- Access and evaluate appropriate sources of information.
- Collect data.
- Write a literature review which assesses the state of the art.
- Write a scientific or technical report.

Teaching methods

Supervised team work sessions, mini-lectures

Expected student activities

Students will participate in a design team to design an object that can be used to support learning, with a given goal and within a given set of constraints.

Students will both participate in their design team and, using the portfolio, will reflect upon the working of their team. They will therefore both (a) learn how to apply concepts from the first semester in a given circumstances and (b) will learn about how to manage design projects and team work.

Assessment methods

80% Written report
20% Portfolio

Supervision

Office hours	Yes
Assistants	No
Forum	Yes

Resources

Bibliography

Bell, Judith (2005) *Doing your research project, A guide for first-time researchers in education, health and social science*, 4th edition. Maidenhead: Open University Press

de Vaus, D.A. (2002) *Surveys in Social Research*, 5th Edition. London: Routledge

Field, A. (2005) *Discovering Statistics Using SPSS*, 2nd Edition. London: Sage.

Cohen, L., Mannion, L., and Morrison, K. (2011) *Research Methods in Education*, 7th Edition. London: Routledge.

Ressources en bibliothèque

- [Surveys in Social Research / De Vaus](#)

- [Research Methods in Education / Cohen](#)
- [Discovering Statistics Using SPSS / Field](#)
- [Doing your research project / Bell](#)

Moodle Link

- <http://moodle.epfl.ch/course/view.php?id=13956>