EPFL

LEARN-602   **Designing activities for developing and assessing computational thinking skills**

Mondada Francesco, Piatti Alberto

Cursus	Sem.	Type
Learning Sciences		Opt.

Language of teaching	English
Credits	3
Session	
Exam	Oral
Workload	90h
Hours	**60**
Courses	30
Exercises	30
Number of positions	**12**

Frequency

Every year

Remark

Cancelled 2023

Summary

In this course, students will learn how to design, realize, analyse and assess educational activities in formal education, with and without the use of technologies, for the development of computational thinking, based on the state of the Art of research in this topic.

Content

Computational Thinking: history, definitions, and components.
Computational thinking problems.
Unplugged activities for the development of Computational Thinking.
Educational Robotics Activities for the development of Computational Thinking.
Coding Activities for the development of Computational Thinking.
Assessing Computational Thinking.
Computational Thinking in formal education.
Overview of the State of the Art of research on Computational Thinking.

Keywords

Computational thinking, Education

Learning Outcomes

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

• By the end of the course, the student will be able to design, realize, analyse and assess education activities in formal education for the development of computational thinking.