

CIVIL-706

Advanced Earthquake Engineering

Khodaverdian Alireza, Lestuzzi Pierino

Cursus	Sem.	Type
Civil & Environmental Engineering		Opt.

Language of teaching	English
Credits	2
Session	
Exam	Oral
Workload	60h
Hours	28
Courses	22
TP	6
Number of positions	

Frequency

Every 3 years

Remark

Next time: Min. 6 persons Start Oct. 5th 2021, Tuesdays 8h15-10 in room GC A1 416

Summary

This course deals with the complex problem of seismic evaluation of existing structures; by far more complicated than for new structures. Aims are to: - show how and why the analysis methods need improvements to be used in this context. - provide an insight of the different retrofitting methods.

Content

- Particularity of existing structures in seismic context
- Vulnerability and seismic evaluation
- Analysis methods
- Strength and displacement based evaluation
- Retrofitting methods (design and technology)

Resources**Websites**

- <https://www.epfl.ch/labs/imac/fr/enseignement/advanced-earthquake-engineering/>