CIVIL-422

Advanced continuum mechanics

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Cursus	Sem.	Type
Civil & Environmental Engineering		Opt.
Civil Engineering	MA1, MA3	Opt.
Computational science and Engineering	MA1, MA3	Opt.
Mechanics		Obl.

Language of teaching	English
Credits	3
Withdrawal	Unauthorized
Session	Winter
Semester	Fall
Exam	Oral
Workload	90h
Weeks	14
Hours	**3 weekly**
Courses	2 weekly
Exercises	1 weekly
Number of positions	**15**

It is not allowed to withdraw from this subject after the registration deadline.

Remark

This is an advanced continuum mechanics class, taught in an inverted class. A small group of students (max. 15) will read class material at home and come with questions to class

Summary

Reading class of classic text book of Lawrence Malvern "Introduction to the Mechanics of a Continuous Medium". A special emphasis will be put on advanced topics, including finite kinematics, and non-linear material behavior.

Content

Book of Lauwrence Malvern "Introduction to the Mechanics of a Continuous Medium"

Learning Prerequisites

Required courses

Introduction to continuum mechanics

Teaching methods

Inverted class
Class discussion

Expected student activities

Reading of a textbook. Solve weekly exercises

Assessment methods

Oral exam :
30 min of preparation for two exercises and discussion of these exercises on board for 30 min.

Resources

Bibliography

Lawrence Malvern, "Introduction to the mechanics of a continuum medium".

Moodle Link

- http://To be announced

Prerequisite for

"Le contenu de cette fiche de cours est susceptible d'être modifié en raison du covid-19"