

COURSE DETAIL

CONTINUUM MECHANICS II

Country

France

Host Institution

University of Bordeaux

Program(s)

University of Bordeaux

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mechanical Engineering

UCEAP Course Number

108

UCEAP Course Suffix**UCEAP Official Title**

CONTINUUM MECHANICS II

UCEAP Transcript Title

CONTINUUM MECHANICS

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

This course introduces the fundamental concepts of continuum mechanics, with a particular focus on the mechanics of deformable solids. Emphasis is placed on the formulation and application of the governing equations of linear isotropic elasticity under small deformations. It studies the continuum approach to modeling materials, including kinematics of deformation, stress and strain analysis, balance laws, and constitutive relations. The course then focuses on elastic solids, covering equilibrium equations, elasticity theory, and the mechanical behavior of one-dimensional structures such as beams. Energy methods and elastic limit criteria are also introduced. Through theoretical instruction and individual problem-solving activities, students develop the tools needed to analyze and solve classical problems in solid mechanics and structural analysis.

Language(s) of Instruction

French

Host Institution Course Number

EMM6-MSOL2

Host Institution Course Title

MECANIQUE DES MILIEUX CONTINUS ET DEFORMABLES - RESISTANCE DES MATERIAUX II

Host Institution Course Details

<https://formation.bordeaux-inp.fr/fr/offre-de-formation-2025-2026/titre-d-ingen...>

Host Institution Campus

INP

Host Institution Faculty

Engineering

Host Institution Degree

Licence

Host Institution Department

Mechanical Engineering

Course Last Reviewed

2025-2026

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