

COURSE DETAIL

MATERIALS SCIENCE

Country

Spain

Host Institution

Complutense University of Madrid

Program(s)

Complutense University of Madrid

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Materials Science

UCEAP Course Number

115

UCEAP Course Suffix**UCEAP Official Title**

MATERIALS SCIENCE

UCEAP Transcript Title

MATERIALS SCIENCE

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

This course offers a study of materials and their interrelationships between structure, properties, processing, and applications. Topics include: types of materials, their general properties, and structural defects; slip phenomena; phase diagrams; solid solutions; diffusion; phase transformations; solidification; solid-state transformations; mechanical properties of materials; elastic and plastic behavior; fracture; materials processing; molding and shaping; materials of technological interest-- metals, ceramics, polymers, composites, and other materials.

Pre-requisites: Basic knowledge of chemistry, physics, mathematics, and geology. It is also recommended to have passed General Chemistry and Geology.

Language(s) of Instruction

English

Host Institution Course Number

801492

Host Institution Course Title

CIENCIA DE MATERIALES

Host Institution Course Details

<https://quimicas.ucm.es/file/2gq-guia-docente-ciencia-de-materiales-2025-21-05-...>

Host Institution Campus

MONCLOA

Host Institution Faculty

Facultad de Ciencias Químicas

Host Institution Degree

GRADO EN QUÍMICA

Host Institution Department

Departamento de Ingeniería Química y de Materiales

Course Last Reviewed

2025-2026

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