COURSE DETAIL

CONDENSED MATTER PHYSICS
Country Norway
Host Institution University of Oslo
Program(s) University of Oslo
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Physics
UCEAP Course Number 129
UCEAP Course Suffix
UCEAP Official Title CONDENSED MATTER PHYSICS
UCEAP Transcript Title CONDENSD MATTER PHY
UCEAP Quarter Units 8.00
UCEAP Semester Units 5.30

Course Description
This course introduces condensed matter physics on a broad basis. The course provides an overview of different types of materials and illustrates how their properties depend on their microscopic structure. The course delivers basic knowledge, but it also serves as an orientation on the current issues in the different branches of condensed matter physics. The course discusses topics including different types of solids and an understanding of how their microscopic structure affects their mechanical, thermal, and electrical properties; crystalline and disordered structures; interrelations between ordering and different interactions in materials; applying diffusion theory; periodicity and electrical, thermal, and mechanical properties in crystals; electrical properties of crystals; types of defects in crystals and how they affect their properties; and numerically modelling disordered materials and how properties change with varying degrees of disorder. The course requires students to have met specific prerequisites in order to enroll in the course.

Language(s) of Instruction
English

Host Institution Course Number
FYS3400

Host Institution Course Title
CONDENSED MATTER PHYSICS

Host Institution Course Details

Host Institution Campus
Mathematics and Natural Sciences

Host Institution Faculty

Host Institution Degree

Host Institution Department
Physics

Course Last Reviewed

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