COURSE DETAIL

VARIATIONAL CALCULUS
Country Mexico
Host Institution National Autonomous University of Mexico
Program(s) National Autonomous University of Mexico
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Physics Mathematics
UCEAP Course Number 142
UCEAP Course Suffix
UCEAP Official Title VARIATIONAL CALCULUS
UCEAP Transcript Title VARIATIONL CALCULUS
UCEAP Quarter Units 7.50
UCEAP Semester Units 5.00

Course Description

This course offers an introduction to the techniques of locating critical points in infinite-dimensional spaces in order to understand the variational formulations of mechanics in physics, including the principles of minimum action that give rise to the Euler-Lagrange equations and the Hamilton-Jacobi equation. Topics include: calculation in spaces of functions; necessary conditions; change of variables-- Hamilton-Jacobi; sufficient conditions.

Language(s) of Instruction
Spanish

Host Institution Course Number
0083

Host Institution Course Title
CALCULO DE VARIACIONES

Host Institution Course Details
https://pagina.fciencias.unam.mx/sites/default/files/temario/83.pdf

Host Institution Campus
CIUDAD UNIVERSITARIA

Host Institution Faculty
FACULTAD DE CIENCIAS

Host Institution Degree

Host Institution Department
MATEMATICAS

Course Last Reviewed
2022-2023

Print