

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.fcencias.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

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