COURSE DETAIL

OPTIMIZATION Country France **Host Institution** University of Bordeaux Program(s) University of Bordeaux **UCEAP Course Level Upper Division UCEAP Subject Area(s)** Mathematics **UCEAP Course Number** 115 **UCEAP Course Suffix UCEAP Official Title OPTIMIZATION UCEAP Transcript Title OPTIMIZATION UCEAP Quarter Units** 6.00 **UCEAP Semester Units** 4.00

Course Description

The objective of this course is to initiate the understanding of the methods and models of optimization. The first part of the course concerns convex optimizations, specifically conditions of optimality, the algorithm of the gradient, and its variants. The second part of the course concerns linear programming in the real and natural numbers. The emphasis is put on modeling. Topics include: modeling, the formalization of concrete problems in the form of mathematical optimization; optimization without constraints (analytic resolution, dichotomy, variants of the gradient); optimization with constraints (conditions of optimality, linear programming, linear programming with whole numbers).

Language(s) of Instruction

French

Host Institution Course Number

4TMQP01U

Host Institution Course Title

OPTIMISATION

Host Institution Course Details

Host Institution Campus

UNIVERSITÉ DE BORDEAUX: Collège des Sciences et Techniques

Host Institution Faculty

Host Institution Degree

Host Institution Department

Mathématiques

Course Last Reviewed

Print