

Code	<b>IE511</b>
Name	<b>Modeling and Optimization</b>
Hour per week	3(3 + 0)
Credit	3
ECTS	10
Level/Year	Graduate
Semester	Fall or Spring
Type	Compulsory
Prerequisites	
Content	The course introduces mathematical modeling comprehensively including linear programming, integer programming, network and transportation models, nonlinear programming, Karush-Kuhn-Tucker conditions. The course focuses on abstracting real-world systems/problems conceptually, formulating and building mathematical models that are appropriate for these systems/problems, coding and solving mathematical models by using available off-the-shelf software e.g. GAMS, CPLEX, EXCEL SOLVER, EXPRESS, GUROBI and interpreting the solutions obtained from the models in terms of real-world system.