Polytechnic Institute of Viseu
School of Technology and Management of Viseu

Course title	Operations Research		
Scientific area	Mathematics		
Teaching method	Lectures are expository, encouraging student participation in discussing the topics, complementing this exposition with a strong practical aspect, where students are invited to solve a series of exercises with applications in real situations.		
Lecturers:	Cristina Costa Lúcia Sousa	Language of instruction	English
ECTS	4	Semester	Spring
Hours per week	1,5	Hours per semester	19,5 TP
Objectives of the course	Identify decision/optimization problems and apply linear programming models and optimization problems in networks and graphs. Make students aware of the broad field of optimization applications.		
Entry requirements	Does not apply.		
Course contents	Formulation of problems in linear programming: mathematical formulation, applications in Linear Programming. Solving linear programming problems: graphical method, simplex method. Optimization problems with networks: shortest path problem, maximum flow problem.		
Assessment methods	Final Exam and practical work evaluated during the semester.		
Recommended readings	Introduction to Operations Research - 8th Edition, Frederick S. Hillier and Gerald J. Lieberman, 2005, ISBN 007-123828-X Operations Research – Applications and Algorithms, Fourth Edition, Wayne L. Winston, 2004, ISBN 0-534-20971-8		
Additional information			