Course plan and schedule for the course version 2017-03-20 Linear and integer optimization with applications, MMG631/MVE165, vt 2017

Linear and integer optimization with applications, MMG631/MVE165, vt 2017								
Week	Day	Date	Start	End	Туре	No	Contents	Literature/Exercises
	Tuesday	2017-03-21	10:00	11:45	Lecture	#1	Introduction; course map; modelling optimization applications;	Chapters in (i): 1, 2.1-5, 3
v 12						#2a	graphic solution AMPL and CPLEX, Computer exercise on linear optimization (Zuz	1 11
	Wednesday	2017-03-22	13:15	15:00	Lecture Computer	#2b	Supply chain (Assignment 1) (Zuzana Nedělková)	
	Wednesday	2017-03-22	15:15	17:00	booked			
	Wednesday Thursday	2017-03-22 2017-03-23	10:00		Problem solving	1	Exercises on linear optimization modelling	Exercises in (ii): see the homepage
	Friday	2017-03-24	10:00	11:45	Lecture	#3	Convexity; basic feasible solution; the simplex method	Chapters in (i): 2.4, 4.1-7, (7.1), 4.8
	Friday	2017-03-24	13:15	15:00	Computer booked	rs		
	L				Computer	rs.		
v 13	Monday	2017-03-27	13:15	15:00	booked		Linear programming: degeneracy; unbounded solution;	
	Tuesday	2017-03-28	10:00		Lecture Computer	#4	infeasibility; starting solutions	Chapters in (i): 4.6, 4.9-10
	Wednesday	2017-03-29	13:15	15:00	booked		Linear programming duality; economic interpretation; post-optimal	
	Wednesday	2017-03-29	15:15		Lecture	#5	and sensitivity analysis	Chapters in (i): 6, (7.2-5), 5.1-5, (5.6)
	Wednesday Thursday	2017-03-29 2017-03-30	08:00 10:00		Problem solving	2	Exercises on linear optimization theory and algorithms	Exercises in (ii): see the homepage
	Friday	2017-03-31	10:00	11:45	Lecture	#6	Discrete optimization models and applications; complexity	Chapters in (i): 13, 2.6
	Friday	2017-03-31	13:15	15:00	Computer booked	rs		
	L	Computers				rs		
v 14	Monday	2017-04-03	13:15	15:00	booked	#7a	Theory and algorithms for discrete optimization models	Chapters in (i): 14.1-3, 15.1-3
	Tuesday	2017-04-04	10:00	11:45	Lecture	#7b	Maintenance scheduling optimization (Assignment 2)	Shaptoro III (I). 14.120, 10.120
	Wednesday	2017-04-05	13:15	17:00	Computer booked	rs		
	Wednesday	2017-04-05		23:55			DEADLINE Assignment 1	
	Wednesday	2017-04-05 2017-04-06	08:00 10:00		Problem solving	3	Exercises on linear optimization duality and sensitivity analysis	Exercises in (ii): see the homepage
	Thursday Friday	2017-04-08	10:00		Lecture	#8	Discrete optimization: theory and algorithms	Chapters in (i): 14.4-5, (14.6), 16.1-2,
	Friday	2017-04-07	13:15	15:00	Computer			17.1-2, (17.3-4) 13.10-11, 15.4,
<u> </u>	. naay	2011 01 01	10.10	10.00	booked			
	I				Computer	re		
	Monday	2017-04-24	13:15	15:00	booked			
	Tuesday	2017-04-25	10:00	11:45	Lecture	#9	Combinatorial optimization theory and algorithms	Chapters in (i): 16, 8.3
v 17	Wednesday	2017-04-26	13:15	17:00	Computer booked	s		
' ''	Wednesday Thursday	2017-04-26 2017-04-27	10:00		Problem solving	4	Exercises on integer linear optimization modelling and algorithms	Exercises in (ii): see the homepage
	Friday	2017-04-28	10:00	11:45	Lecture	#10	Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows	Chapters in (i):, 8.1-2, 8.4, (8.5), 18.1-5, (18.6-7), 13.5
	Friday	2017-04-28	13:15	15:00	Computer booked	rs		15, (1515 1), 1515
				09:30			DEADLINE Assignment 2 - IN THE MORNING!	
	Tuesday	2017-05-02	12:00	17:00			DEADLINE Assignment 2-opposition - SUBMISSION FOR PEER	
	Tuesday	2017-05-02	10:00	10:45 11:45	Lecture	#11a #11b	Wind power investment and generation (Assignment 3a) Ola Carls TBD (Assignment 3b) TBD	on (Energy and Environment)
	Wednesday	2017-05-03	13:15	17:00	Computer booked	rs	,	
v 18	Wednesday	2017-05-03	08:00		Problem	5	Exercises on integer linear optimization theory and algorithms	Exercises in (ii): see the homepage
	Thursday Friday	2017-05-04	10:00		solving Lecture	#12	Linear programming formulations and algorithms for minimum cos	
					Computer		network flows	Chapters III (i). 0.0-7
	Friday	2017-05-05	13:15	15:00	booked		DEADLINE Constitute (security) on Assistance 2	
	Friday	2017-05-05		23:55			DEADLINE Opposition (peer review) on Assignment 2	
v 19	Monday	2017-05-08	13:15	15:00	Computer	rs		
	Tuesday				booked		Multi-objective optimization	(iii): Hand-outs
		2017-05-09	10:00	11:45	Lecture	#13		
	Wednesday	2017-05-09	10:00	11:45 17:00	Computer			
v 19	Wednesday	2017-05-10	13:15 08:00	17:00 09:45	Computer booked Problem		Exercises on network flows	Exercises in (ii): see the homenage
v 19	Wednesday Thursday	2017-05-10 2017-05-10 2017-05-11	13:15 08:00 10:00	17:00 09:45 11:45	Computer booked Problem solving	6		Exercises in (ii): see the homepage
v 19	Wednesday Thursday Friday	2017-05-10 2017-05-10 2017-05-11 2017-05-12	13:15 08:00 10:00 10:00	17:00 09:45 11:45 11:45	Computer booked Problem solving Lecture	6 #14	Exercises on network flows Overview of non-linear optimization	Exercises in (ii): see the homepage Chapters in (i): 2.5.1, 9-12
v 19	Wednesday Thursday	2017-05-10 2017-05-10 2017-05-11	13:15 08:00 10:00	17:00 09:45 11:45	Computer booked Problem solving	6 #14		
v 19	Wednesday Thursday Friday	2017-05-10 2017-05-10 2017-05-11 2017-05-12	13:15 08:00 10:00 10:00	17:00 09:45 11:45 11:45	Computer booked Problem solving Lecture Computer booked Computer	6 #14		
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