Course plan and schedule for the course

Linear and integer optimization with applications, MMG631/MVE165, vt 2018

Week	Day	Date	Start	End	Туре	No	Contents	Literature/Exercises
v 12	Tuesday	2018-03-20	10:00	11:45	Lecture	#1	Introduction; course map; modelling optimization	Chapters in (i): 1, 2.1–5, 3
	Wednesday	2018-03-21			Lecture	#2a	applications: graphic solution AMPL and CPLEX, Computer exercise on linear optimiza	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1
					#2b Computers		Supply chain (Assignment 1)	
	Wednesday	2018-03-21		17:00	booked			
	Wednesday Thursday	2018-03-21 2018-03-22	08:00 10:00	09:45 11:45	Problem solving	1	Exercises on linear optimization modelling	Exercises in (ii): see the homepage
	Friday	2018-03-23	10:00	11:45	Lecture	#3	Convexity; basic feasible solutions; change of basis	Chapters in (i): 2.4, 4.1–4, (7.1), 4.8
	Friday	2018-03-23	13:15	15:00	Compute booked	ers		
v 13–14 Easter break and exam week								
v 15	Monday	2018-04-09	13:15	15:00	Compute	ers		
	Tuesday	2018-04-10			booked Lecture	#4	Linear programming: the simplex method; degeneracy;	Chapters in (i): 4.5–10
	-						unbounded solution: infeasibility: starting solutions	
	Wednesday	2018-04-11		15:00	Lecture Compute	#5 ers	Linear programming duality; economic interpretation	Chapters in (i): 6, (7.2–5)
	Wednesday Wednesday	2018-04-11 2018-04-11	15:15 08:00	17:00 09:45	booked Problem			
	Thursday	2018-04-11			solving	2	Exercises on linear optimization theory and algorithms	Exercises in (ii): see the homepage
	Friday	2018-04-13	10:00	11:45	Lecture	#6	Linear programming: post-optimal and sensitivity analysis	5.1–5, (5.6)
	Monday	2018-04-16	13:15	15:00	Computers			
v 16	Tuesday	2018-04-17	10:00		booked Lecture	#7	Discrete optimization models and applications;	Chapters in (i): 13, 2.6
	Wednesday	2018-04-18		17:00	Compute		complexity	Onaptoro III (1): 10, 2.0
	Wednesday	2018-04-18	10.10	23:55	booked		DEADLINE Assignment 1	
	Wednesday	2018-04-18	08:00		Problem	_	Exercises on linear optimization duality and sensitivity	L
	Thursday	2018-04-19			solving	3	analysis	Exercises in (ii): see the homepage
	Friday	2018-04-20	10:00	10:45	Lecture	#8a #8b	Theory and algorithms for discrete optimization models Maintenance scheduling optimization (Assignment 2)	Chapters in (i): 14.1–3, 15.1–3
	Monday	2018-04-23	18-04-23 13:15 15:00 Compu					
v 17	Tuesday	2018-04-24			booked Lecture	#9	Discrete optimization: theory and algorithms	Chapters in (i): 14.4–5, (14.6), 16.1–2,
					Compute		Discrete optimization, theory and algorithms	17.1–2, (17.3–4) 13.10–11, 15.4, (15.5)
	Wednesday Wednesday	2018-04-25 2018-04-25		17:00 09:45	booked Problem		Exercises on integer linear optimization modelling and	
	Thursday	2018-04-26			solving	4	algorithms	Exercises in (ii): see the homepage
	Friday	2018-04-27	10:00	11:45	Lecture	#10	Combinatorial optimization theory and algorithms	Chapters in (i): 16, 8.3
v 18	Wednesday	2018-05-02	13:15	15:00	Lecture	#11	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
	Wednesday	2018-05-02	15:15	17:00	Compute booked	ers	broad ammind. Integrational broad ammind to middletons of hows	110.1=3.110.0=71, 13.3
	Wednesday	2018-05-02			Problem	5	Exercises on integer linear optimization theory and	Exercises in (ii): see the homepage
V 10	Thursday	2018-05-03	10:00	11:45 09:30	solving	Ů	algorithms DEADLINE Assignment 2 – IN THE MORNING!	Ziorisios III (II): see tile lielliepage
	Thursday	2018-05-03	12:00	17:00			DEADLINE Assignment 2-opposition – SUBMISSION FOR PA	EER REVIEW DURING THE DAY!
	Friday	2018-05-04	10:00	11:45	Lecture	#12	Linear programming formulations and algorithms for minimum cost network flows	Chapters in (i): 8.6-7
v 19	Monday	2018-05-07	13:15	15:00	Computers			
	Monday	2018-05-07		23:55	booked		DEADLINE Opposition (peer review) on Assignment 2	
	Tuesday	2018-05-08	10:00		Lecture	#13	Multi-objective optimization	(iii): Hand-outs
	Wednesday	2018-05-09		09:45	Problem	6	Exercises on network flows	Exercises in (ii): see the homepage
		2018-05-09		17:00	solvina Compute		EAGLOSS OF HOLWORK HOWS	Excresses in (ii). see the nomepage
	Wednesday	2010-03-09	13:15	17:00	booked			
v 20	Monday	2018-05-14	13:15	15:00	Compute booked	ers		
	Tuesday	2018-05-15	10:00	11:45	Lecture	#14	Overview of non-linear optimization	Chapters in (i): 2.5.1, 9–12
	Wednesday	2018-05-16	13:15	17:00	Compute booked	ers		
	Wednesday	2018-05-16			Problem	7	Exercises on non-linear optimization	Exercises in (ii): see the homepage
	Thursday Friday	2018-05-17 2018-05-18		11:45 23:55	solving		DEADLINE Assignment 3	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
v 21	TBD TBD	TBD TBD	TBD	TBD	Pres – prelim Pres – prelim		Students' presentations of Assignment 3 – specific schedule will be posted Students' presentations of Assignment 3 – specific schedule will be posted	
	TBD	TBD	TBD	TBD		relim	Students' presentations of Assignment 3 – specific sched	dule will be posted
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	TBD	TBD	TBD	TBD	Pres – pr	enm	Students' presentations of Assignment 3 – specific sched	due will be posted