Course plan and schedule for the course version 2019-03-15 Linear and integer optimization with applications, MMG631/MVE165, Lp4 2019

Linear and integer optimization with applications, MINIGOS MINICOS, Ep4 2019								
Week	Day	Date	Start	End	Туре	Nο	Contents	Literature/Exercises
VVCCK	Day	Date	Otart	Liid	Турс	140	Outene	Elici atai o/ Exci discs
							Introduction; course map; modelling optimization applications;	
	Tuesday	2019-03-26	10:00	11:45	Lecture	#1	graphic solution	Chapters in (i): 1, 2.1–5, 3
	Wednesday	2019-03-27	08:00	09:45	Problem		- · · · · · · · · · · · · · · · · · · ·	
	Thursday	2019-03-28	10:00	11:45	solving	1	Exercises on linear optimization modelling	Exercises in (ii): see the homepage
w 13						#2a	Julia/JuMP and optimization solvers; computer exercise on linear	optimization (Edvin Åblad)
	Wednesday	2019-03-27	13:15	15:00	Lecture	#2b		
	Wednesday	2019-03-27	15:15	17:00	Computers	book		
	Friday	2019-03-29	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	2019-03-29	13:15	15:00	Computers			
	Monday	2019-04-01	13:15	15:00	Computers	book	ked	
	Tuesday	2019-04-02	10:00	11:45	Lecture	#4	Linear programming: the simplex method; degeneracy;	Chapters in (i): 4.5–10
	•						unbounded solution; infeasibility; starting solutions	Shaptere in (i). Its Te
w 14	Wednesday	2019-04-03	08:00	09:45	Problem	2	Exercises on linear optimization theory and algorithms	Exercises in (ii): see the homepage
	Thursday	2019-04-04	10:00	11:45	solving		, , ,	
	Wednesday	2019-04-03	13:15	15:00	Lecture	#5	Linear programming duality; economic interpretation	Chapters in (i): 6, (7.2–5)
	Wednesday	2019-04-03	15:15	17:00	Computers	_		- 4 - 4 - 4
	Friday	2019-04-05	10:00	11:45	Lecture	#6	Linear programming: post-optimal and sensitivity analysis	5.1–5, (5.6)
	Monday 2019-04-08 13:15 15:00 Cor					Computers booked		
w 15	Tuesday	2019-04-08	10:00	11:45	Lecture	#7	Discrete optimization models and applications; complexity	Chapters in (i): 13, 2.6
	Wednesday	2019-04-09	08:00	09:45	Problem	#1	proofete optimization models and applications, complexity	Onapters III (i). 10, 2.0
	Thursday	2019-04-10	10:00	11:45	solving	3	Exercises on linear optimization duality and sensitivity analysis	Exercises in (ii): see the homepage
	Wednesday	2019-04-11	13:15	17:00	Computers	hool	red	
	Wednesday	2019-04-10	13.13	23:55	Computers	DOOR	DEADLINE Assignment 1	
	Weunesday	2019-04-10		23.33		#8a	Theory and algorithms for discrete optimization models	Chapters in (i): 14.1–3, 15.1–3
	Friday	2019-04-12	10:00	11:45	Lecture	_	Maintenance scheduling optimization (Assignment 2)	Onapters in (i). 14.1–5, 15.1–5
						n ob	Maintenance seriedding optimization (7.001g/intent 2)	
w 16	Monday	2019-04-15	13:15	15:00	Computers	book	ked	
	·							Chapters in (i): 14.4–5, (14.6), 16.1–2, 17.1–2,
	Tuesday	2019-04-16	10:00	11:45	Lecture	#9	Discrete optimization: theory and algorithms	(17.3–4) 13.10–11, 15.4, (15.5)
	Wednesday	2019-04-17	08:00	09:45	Problem	4	Exercises on integer linear optimization modelling and algorithms	Exercises in (ii): see the homepage
					solving			
	Wednesday	2019-04-17	-04-17 13:15 17:00 Computers booked					
	Thursday w 16	- Wednesday	w 18				Faster break re-exams Valborg and I	May1
	Thursday w 16	- Wednesday	w 18				Easter break, re-exams, Valborg and I	May1
		·		11:45	Problem	1		
w 18	Thursday	2019-05-02	10:00	11:45	solving	4	Exercises on integer linear optimization modelling and algorithms	Exercises in (ii): see the homepage
w 18		·		11:45 11:45				
w 18	Thursday Friday	2019-05-02 2019-05-03	10:00	11:45	solving Lecture	#10	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms	Exercises in (ii): see the homepage
w 18	Thursday	2019-05-02	10:00 10:00 13:15	11:45	solving Lecture Computers	#10	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3
w 18	Thursday Friday	2019-05-02 2019-05-03	10:00	11:45	solving Lecture	#10	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms ked Network optimization: Shortest paths, dynamic programming,	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–
w 18	Thursday Friday Monday	2019-05-02 2019-05-03 2019-05-06	10:00 10:00 13:15	11:45	Lecture Computers Lecture	#10 book #11	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms ted Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5
	Thursday Friday Monday Tuesday	2019-05-02 2019-05-03 2019-05-06 2019-05-07	10:00 10:00 13:15 10:00	11:45 15:00 11:45	solving Lecture Computers	#10	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms ked Network optimization: Shortest paths, dynamic programming,	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–
w 18	Thursday Friday Monday Tuesday Wednesday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08	10:00 10:00 13:15 10:00 08:00	11:45 15:00 11:45 09:45	Lecture Computers Lecture Problem	#10 book #11	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5
	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-09 2019-05-08	10:00 10:00 13:15 10:00 08:00 10:00	11:45 15:00 11:45 09:45 11:45	Lecture Computers Lecture Problem solving	#10 book #11	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5
	Thursday Friday Monday Tuesday Wednesday Thursday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-09	10:00 10:00 13:15 10:00 08:00 10:00	11:45 15:00 11:45 09:45 11:45 17:00	Lecture Computers Lecture Problem solving	#10 book #11	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed)	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage
	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-08 2019-05-10	10:00 10:00 13:15 10:00 08:00 10:00 13:15	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00	Computers Lecture Problem solving Computers	#10 book #11 5	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms Red Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms Red DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage
	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-09 2019-05-08	10:00 10:00 13:15 10:00 08:00 10:00 13:15	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00	Lecture Computers Lecture Problem solving	#10 book #11	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage
	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-09 2019-05-10 2019-05-10	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00 11:45	Computers Lecture Problem solving Computers Lecture	#10 book #11 5 book #12	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage
	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-09 2019-05-10 2019-05-10	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00 11:45	solving Lecture Computers Lecture Problem solving Computers Lecture	#10 book #11 5 book #12	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms ted Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms ted DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7
	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday Tuesday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-10 2019-05-10 2019-05-11 2019-05-13 2019-05-14	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00 11:45	Computers Lecture Problem solving Computers Lecture	#10 book #11 5 book #12	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms Red Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms Red DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday Tuesday Tuesday Tuesday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-08 2019-05-10 2019-05-10 2019-05-13 2019-05-14 2019-05-14	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00 11:45 15:00 11:45 23:55	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture	#10 book #11 5 book #12 book #13	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed) Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed) DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows (ed) Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7
	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday Tuesday Tuesday Tuesday Wednesday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-09 2019-05-08 2019-05-10 2019-05-10 2019-05-13 2019-05-14 2019-05-14 2019-05-14	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00 13:15	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00 11:45 15:00 11:45 23:55 09:45	solving Lecture Computers Lecture Problem solving Computers Lecture	#10 book #11 5 book #12	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms Red Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms Red DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday Tuesday Tuesday Wednesday Thursday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-09 2019-05-10 2019-05-10 2019-05-11 2019-05-14 2019-05-14 2019-05-15 2019-05-15	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00 08:00 10:00	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00 11:45 15:00 11:45 23:55 09:45 11:45	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Problem solving	#10 book #11 5 book #12 book #13 6	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows (ed Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday Tuesday Tuesday Tuesday Tuesday Tuesday Wednesday Thursday Wednesday Thursday Wednesday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-09 2019-05-10 2019-05-10 2019-05-13 2019-05-14 2019-05-15 2019-05-15	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00 13:15 10:00 08:00 10:00 13:15	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00 11:45 15:00 11:45 23:55 09:45 11:45 17:00	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Problem solving Computers Computers	#10 book #11 5 book #12 book #13 6 book	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows (ed Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7 (iii): Hand-outs Exercises in (ii): see the homepage
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday Tuesday Tuesday Wednesday Thursday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-09 2019-05-10 2019-05-10 2019-05-11 2019-05-14 2019-05-14 2019-05-15 2019-05-15	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00 08:00 10:00	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00 11:45 15:00 11:45 23:55 09:45 11:45	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Problem solving	#10 book #11 5 book #12 book #13 6 book	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows (ed Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday Tuesday Tuesday Tuesday Tuesday Tuesday Wednesday Thursday Wednesday Thursday Wednesday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-09 2019-05-10 2019-05-10 2019-05-13 2019-05-14 2019-05-15 2019-05-15	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00 13:15 10:00 08:00 10:00 13:15	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00 11:45 15:00 11:45 23:55 09:45 11:45 17:00 11:45	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Problem solving Computers	#10 book #11 5 book #12 book #13 6 book #14	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms Red Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms Red DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows Red Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7 (iii): Hand-outs Exercises in (ii): see the homepage
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Monday Truesday Monday Tuesday Tuesday Tuesday Wednesday Thursday Wednesday Friday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-10 2019-05-10 2019-05-14 2019-05-14 2019-05-15 2019-05-15 2019-05-15 2019-05-17	10:00 10:00 10:00 13:15 10:00 08:00 10:00 13:15 10:00 08:00 08:00 10:00 13:15 10:00	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00 11:45 15:00 11:45 23:55 09:45 11:45 17:00 11:45	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Computers Lecture Computers Computers Lecture Computers Computers Computers Computers Computers Computers Computers Computers Computers	#10 book #11 5 book #12 book #13 6 book #14	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows (ed Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows (ed Overview of non-linear optimization	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7 (iii): Hand-outs Exercises in (ii): see the homepage Chapters in (i): 2.5.1, 9–12
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Monday Tuesday Tuesday Tuesday Tuesday Tuesday Tuesday Wednesday Thursday Wednesday Thursday Wednesday Thursday Monday Monday	2019-05-02 2019-05-03 2019-05-06 2019-05-08 2019-05-08 2019-05-10 2019-05-10 2019-05-11 2019-05-14 2019-05-15 2019-05-15 2019-05-15 2019-05-17	10:00 10:00 10:00 10:00 10:00 10:00 10:00 10:00 10:00 10:00 10:00 10:00 10:00 10:00 10:00 10:00 10:00	11:45 15:00 11:45 09:45 17:00 09:30 17:00 11:45 15:00 11:45 17:00 11:45 17:00 11:45	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Problem solving Computers Lecture	#10 book #11 5 book #12 book #13 6 book #14	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms Red Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms Red DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows Red Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7 (iii): Hand-outs Exercises in (ii): see the homepage
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Monday Tuesday Wednesday Thursday Wednesday Tiuesday Wednesday Thursday Wednesday Thursday Wednesday Friday Monday Wednesday Friday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-08 2019-05-10 2019-05-10 2019-05-14 2019-05-14 2019-05-15 2019-05-15 2019-05-15 2019-05-17 2019-05-17	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00 13:15 10:00 13:15 10:00 13:15 10:00	11:45 15:00 11:45 09:45 17:00 09:30 17:00 11:45 15:00 11:45 17:00 11:45 15:00 09:45	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Computers Lecture Computers Computers Lecture Computers Computers Lecture	#10 book #11 5 book #12 book #13 6 book #14 book #14	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows (ed Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows (ed Overview of non-linear optimization	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7 (iii): Hand-outs Exercises in (ii): see the homepage Chapters in (i): 2.5.1, 9–12
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday Tuesday Wednesday Tuesday Wednesday Tiuesday Wednesday Thursday Wednesday Thursday Wednesday Thursday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-09 2019-05-09 2019-05-10 2019-05-10 2019-05-13 2019-05-14 2019-05-15 2019-05-15 2019-05-15 2019-05-17 2019-05-17 2019-05-12 2019-05-12 2019-05-22 2019-05-22	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00 13:15 10:00 13:15 10:00 13:15 10:00	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00 11:45 15:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Computers Lecture Problem solving Computers Lecture Problem solving Computers Lecture Problem solving Computers Lecture	#10 book #11 5 book #12 book #13 6 book #14 book #14	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows (ed Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows (ed Overview of non-linear optimization	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7 (iii): Hand-outs Exercises in (ii): see the homepage Chapters in (i): 2.5.1, 9–12
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday Tuesday Tuesday Wednesday Tuesday Wednesday Thursday Thursday Wednesday Thursday Wednesday Thursday Wednesday Thursday Wednesday Thursday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-09 2019-05-09 2019-05-10 2019-05-10 2019-05-13 2019-05-14 2019-05-15 2019-05-15 2019-05-15 2019-05-17 2019-05-22 2019-05-23 2019-05-23	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00 13:15 10:00 13:15 10:00 13:15 10:00	11:45 15:00 11:45 09:45 17:00 99:30 17:00 11:45 23:55 17:00 11:45 17:00 99:45 11:45 17:00 11:45	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Computers Lecture Problem solving Computers Lecture Problem solving Computers Lecture Problem solving Computers Lecture	#10 book #11 5 book #12 book #13 6 book #14 book #14	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed) Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed) DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows (ed) Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows (ed) Overview of non-linear optimization (ed) Exercises on non-linear optimization	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7 (iii): Hand-outs Exercises in (ii): see the homepage Chapters in (i): 2.5.1, 9–12
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday Tuesday Tuesday Wednesday Tuesday Wednesday Thursday Thursday Wednesday Thursday Wednesday Thursday Wednesday Thursday Wednesday Thursday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-09 2019-05-09 2019-05-10 2019-05-10 2019-05-13 2019-05-14 2019-05-15 2019-05-15 2019-05-15 2019-05-17 2019-05-22 2019-05-23 2019-05-23	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00 13:15 10:00 13:15 10:00 13:15 10:00	11:45 15:00 11:45 09:45 17:00 09:30 17:00 11:45 15:00 11:45 17:00 11:45 15:00 11:45 17:00 17:00 11:45 17:00 17	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Computers Lecture Problem solving Computers Lecture Problem solving Computers Lecture Problem solving Computers Lecture	#10 book #11 5 book #12 book #13 6 book #14 book #14	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed) Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed) DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows (ed) Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows (ed) Overview of non-linear optimization (ed) Exercises on non-linear optimization	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7 (iii): Hand-outs Exercises in (ii): see the homepage Chapters in (i): 2.5.1, 9–12
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Monday Truesday Wednesday Truesday Wednesday Tuesday Wednesday Thursday Wednesday Thursday Wednesday Triday Monday Wednesday Triday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-09 2019-05-10 2019-05-10 2019-05-13 2019-05-14 2019-05-15 2019-05-15 2019-05-15 2019-05-15 2019-05-22 2019-05-22 2019-05-24	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00	11:45 15:00 11:45 09:45 17:00 09:30 17:00 11:45 15:00 11:45 17:00 11:45 17:00 11:45 17:00 09:45 11:45 17:00 23:55 11:45 17:00	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Computers Computers Computers Computers Computers Computers Computers	#10 book #111 5 book #12 book #13 6 book #14 book #14	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed) Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed) DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows (ed) Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows (ed) Overview of non-linear optimization (ed) Exercises on non-linear optimization	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7 (iii): Hand-outs Exercises in (ii): see the homepage Chapters in (i): 2.5.1, 9–12
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Monday Tuesday Tuesday Monday Tuesday Wednesday Thursday Wednesday Thursday Wednesday Friday Monday Wednesday Friday Monday Wednesday Thursday Wednesday Thursday Monday Wednesday Thursday Monday Wednesday Thursday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-09 2019-05-10 2019-05-10 2019-05-13 2019-05-14 2019-05-15 2019-05-15 2019-05-15 2019-05-12 2019-05-22 2019-05-22 2019-05-24 2019-05-27 2019-05-27	10:00 10:00 10:00 13:15 10:00 08:00 10:00 13:15 10:00 10:00 13:15 10:00 10:00 13:15 10:00 10:00 13:15 10:00 10:00 13:15 10:00 13:15 10:00 10:00 13:15 10:00	11:45 15:00 11:45 09:45 11:45 17:00 09:30 17:00 11:45 15:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45 17:00 23:55 11:45 17:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45 17:00	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Computers Lecture Computers Computers Computers Computers Computers Computers Computers Problem solving Computers Problem solving Computers	#10 book #111 5 book #12 book #13 6 book #14 book #14 book #14 book #14 book #14 book #15 book #16 book #17 boo	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms Red Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms Red DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows Red Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows Red Overview of non-linear optimization Red Exercises on non-linear optimization Red DEADLINE Assignment 3	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7 (iii): Hand-outs Exercises in (ii): see the homepage Chapters in (i): 2.5.1, 9–12 Exercises in (ii): see the homepage
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday Tuesday Tuesday Wednesday Thursday Wednesday Thursday Wednesday Thursday Wednesday Friday Monday Monday Wednesday Thursday Wednesday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-09 2019-05-10 2019-05-10 2019-05-11 2019-05-14 2019-05-15 2019-05-15 2019-05-15 2019-05-15 2019-05-22 2019-05-22 2019-05-24 2019-05-27 2019-05-27 2019-05-27	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00 10:00 13:15 10:00 10:00 13:15 10:00 10:00 13:15 10:00 10:00 10:00 13:15	11:45 15:00 11:45 09:45 17:00 99:30 17:00 11:45 23:55 17:00 11:45 17:00 99:45 11:45 17:00 23:55 17:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45 17:00 17:15 17:00 17:15 17:00 17:15 17:00 17:15 17:00 17:15 17:00 17:15	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Computers Computers Computers Computers Computers Computers Computers	#10 book #111 book #12 book #13 6 book #14 book #14	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms (ed) Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms (ed) DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows (ed) Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows (ed) Overview of non-linear optimization (ed) Exercises on non-linear optimization	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7 (iii): Hand-outs Exercises in (ii): see the homepage Chapters in (i): 2.5.1, 9–12 Exercises in (ii): see the homepage
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday Tuesday Tuesday Wednesday Thursday Wednesday Thursday Wednesday Thursday Wednesday Friday Monday Monday Monday Tuesday Thursday Wednesday Thursday Wednesday Thursday Wednesday Thursday Tuesday Tuesday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-08 2019-05-10 2019-05-10 2019-05-11 2019-05-12 2019-05-15 2019-05-15 2019-05-15 2019-05-15 2019-05-22 2019-05-22 2019-05-22 2019-05-24	10:00 10:00 10:00 13:15 10:00 08:00 10:00 13:15 10:00 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 13:15 10:00 10:00 13:15 10:00	11:45 15:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45 15:00 11:45 17:00 17	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Computers Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Problem solving Computers Presentatic prelimina	#10 book #111 book #12 book #13 6 book #14 book #14	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms Red Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms Red DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows Red Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows Red Overview of non-linear optimization Red Exercises on non-linear optimization Red DEADLINE Assignment 3	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7 (iii): Hand-outs Exercises in (ii): see the homepage Chapters in (i): 2.5.1, 9–12 Exercises in (ii): see the homepage
w 19	Thursday Friday Monday Tuesday Wednesday Thursday Wednesday Friday Friday Monday Tuesday Tuesday Wednesday Thursday Wednesday Thursday Wednesday Thursday Wednesday Friday Monday Monday Wednesday Thursday Wednesday	2019-05-02 2019-05-03 2019-05-06 2019-05-07 2019-05-09 2019-05-10 2019-05-10 2019-05-11 2019-05-14 2019-05-15 2019-05-15 2019-05-15 2019-05-15 2019-05-22 2019-05-22 2019-05-24 2019-05-27 2019-05-27 2019-05-27	10:00 10:00 13:15 10:00 08:00 10:00 13:15 12:00 10:00 10:00 13:15 10:00 10:00 13:15 10:00 10:00 13:15 10:00 10:00 10:00 13:15	11:45 15:00 11:45 09:45 17:00 99:30 17:00 11:45 23:55 17:00 11:45 17:00 99:45 11:45 17:00 23:55 17:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45 17:00 11:45 17:00 17:15 17:00 17:15 17:00 17:15 17:00 17:15 17:00 17:15 17:00 17:15	solving Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Computers Lecture Computers Lecture Problem solving Computers Lecture Computers Lecture Problem solving Computers Presentatic prelimina	#10 book #111 book #12 book #13 6 book #14 book #14	Exercises on integer linear optimization modelling and algorithms Combinatorial optimization theory and algorithms Red Network optimization: Shortest paths, dynamic programming, linear programming formulations of flows Exercises on integer linear optimization theory and algorithms Red DEADLINE Assignment 2 – IN THE MORNING! DEADLINE Assignment 2-opposition – SUBMISSION FOR PEER Linear programming formulations and algorithms for minimum cost network flows Red Multi-objective optimization DEADLINE Opposition (peer review) on Assignment 2 Exercises on network flows Red Overview of non-linear optimization Red Exercises on non-linear optimization Red DEADLINE Assignment 3	Exercises in (ii): see the homepage Chapters in (i): 16, 8.3 Chapters in (i): 16, 8.3 Chapters in (i):, 8.1–2, 8.4, (8.5), 18.1–5, (18.6–7), 13.5 Exercises in (ii): see the homepage REVIEW DURING THE DAY! Chapters in (i): 8.6–7 (iii): Hand-outs Exercises in (ii): see the homepage Chapters in (i): 2.5.1, 9–12 Exercises in (ii): see the homepage