Chalmers University of Technology University of Gothenburg Department of Mathematical Sciences Optimization Ann-Brith Strömberg, professor TMA521 MMA511 Large-Scale Optimization, 7.5 hec Lp3 2017/2018 Version: January 10, 2018

Course plan

Study week Calendar week	Weekday	Date	Hours	Room	Activity	#	Respon- sible	Topics
LV1	Tue	16/1	8-10	MVF23	Lecture	1	ABS	Introduction; simple and hard problems; introduction of project 1
2	Wed	17/1	15-17	MVF23	Lecture	2	ABS	Lagrangean relaxation, I
3	Fri	19/1	13–15	MVF23	Lecture	3	ABS	Lagrangean relaxation, II
LV2	Tue	23/1	8-10	MVF23	Lecture	4	ABS	Lagrangean relaxation, III
4	Wed	24/1	15–17	MVF23	Workshop	5	ABS + students	Workshop: discrete network design and Lagrangean relaxation
	Fri	26/1	13–15	MVF23	Lecture	6	ABS	Lagrangean relaxation, IV
LV3	Tue	30/1	8-10	MVF23	Lecture	7	ABS	Column generation, I
5	Wed	31/1	15-17	MVF23	Lecture	8	ABS	Column generation, II
	Fri	2/2	13-15	MVF23	Lecture	9	ABS	Column generation, III
LV4	Tue	6/2	8-10	MVF23	Lecture	10	ABS	Computational complexity
6	Thu	8/2	23:55		Deadline		Students	Hand in report (also to opponents) and program of project 1
-	Fri	9/2	13–15	MVF23	Lecture	11	ABS	Introduction of project 2
LV5	Wed	14/2	15–17	MVF23	Workshop	12	ABS + students	<i>Workshop: Technical discussion on project 2</i>
7	Fri	16/2	13-15	MVF23	Present-	13		Presentations of & opposition on
			15-16	tbd	ation	14	Students	project 1
LV6	Wed	21/2	15-17	MVF23	Lecture	15	ABS	Benders decomposition
8	Fri	23/2	13–15	MVF23	Lecture	16	ABS	Combining decomposition principles
LV7 9							Students	Project work
LV8	Tue	6/3	23:55		Deadline		Students	Hand in report of project 2 (also to opponents)
10	Thu	8/3	16:00		Deadline		Students	Hand in program of project 2
			16:30		Release		ABS	Release of competition instance
	Fri	9/3	13-15	MVF23	Present-	17	Students	Presentations of & opposition on
			15-16	tbd	ation	18	Students	project 2
LV9				tbd	Oral		ABS +	Exam week: possibly oral exam
11				ιθu	exam		students	ελαπί week. possibly of al exam

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The shadowed fields indicate mandatory presence for passing the course