

EXERCISE GUIDE TO THE BASIC COURSE IN OPTIMIZATION

The exercises are divided into three categories: easy (straightforward applications of the theory), medium (require more work and sometimes a combination of different aspects of the theory) and hard (are conceptually difficult, reach beyond the introduced theory and can include proving statements). Exercise numbers starting with an H are given as handouts on the course homepage. Exercises without an H are from the course book. The exercises marked in **bold** are assignment exercises. These are to be prepared by the students for the next exercise session in order to obtain a mark (one of the students who has prepared the assignment exercise will be chosen to demonstrate it on the blackboard). There will be in total 33 assignment exercises. 30 marks implies 2 bonus points on the exam, 16 marks implies 1 bonus point on the exam. The bonus points are only valid on the first exam after the course (they are not valid on the re-exams).

W.	Ex.	Easy	Medium	Hard
1	1	H1.1, H1.2, H1.3 , H1.4, H1.5	1.1, 1.2, 1.3, 1.4, H1.6	H1.7, H1.8, H1.9
2	2	3.14ab, 3.11, 3.12a, 3.9 , H2.1	H2.2 , 3.12b-f, 3.14c-e, 3.3, 3.2, 3.5,	3.4, 3.6, 3.8
2	3	H3.1 , H3.2, H3.3 , H3.4, H3.5	H3.6, 4.2, 4.3	4.7, 4.5
3	4	H4.1a , H4.1b , 11.2 , 11.7a 11.5ab, 11.6ab	H4.1cd , 11.3, 11.4, 11.5c, 11.6c, 11.7b	11.10, 11.11, 11.13
3	5	H5.1 , H5.2, H5.3, H5.4, 5.7a	H5.5 , H5.6, H5.7 , H5.8, 5.8	5.5,5.6,5.4
4	6	H6.1 , H6.2 , H6.3, 6.2a, 6.7, 6.9	H6.4 , H6.5, 6.3, 6.5a, 6.6,	6.4, 6.8, 6.10
4	7	H7.2 , H7.3 , H7.4 , 8.4	H7.1 , 8.1, 8.5, 8.7	8.2, 8.6, 8.3
5	8	9.1, H8.1 , H8.4, H8.5, H8.7	9.2, H8.2 , H8.3 , H8.6, H8.8	9.3, 9.4
5	9	10.1, 10.7, H9.1 , H9.2	10.2, H9.3, H9.4	10.3, 10.5, 10.6
6	10	H10.1 , H10.2 , H10.3 ,	10.13, 10.14	-
6	11	12.3a , 12.3b , 12.4, 12.7 , 12.8	12.5, 12.9	12.1, 12.2, 12.6
7	12	13.3, 13.4, 13.5, 13.6	13.1, 13.2	-