SF2822 - Applied nonlinear optimization
Plan for exercise sessions, spring 2018

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In general, in the beginning of each exercise sessions there will be a recap of the theory part covered in the lectures. Note that the recommended exercises are my personal choice in order to make it easier to start and to understand the basic theory. They are not a guarantee for passing the final exam.

Exercise session 1: Convexity and optimality conditions.
 In class: 1.10 a), an exercise similar to 1.1.
 Recommended: 1.1, 1.3, 1.11

Exercise session 2: Unconstrained optimization.
 In class: An exercise similar to 2.2
 Recommended: 2.2 a) and/or b) and/or c), 2.3.

Exercise session 3: Equality-constrained quadratic programming.
 In class: An exercise similar to 3.6 a) & b), an exercise similar to 4.7.
 Recommended: 3.6, 3.3.

Exercise session 4: Inequality-constrained quadratic programming - Active-set & Interior point method.
 In class: An exercise similar to 4.7, 6.1.
 Recommended: 4.7, 4.8, Ex. 1 on Exam 2015-06-03, 6.7.

Exercise session 5: Sequential quadratic programming.
 In class: An exercise similar to 5.5, an exercise similar to 6.7, Ex. 4 on Exam 2004-04-23.
 Recommended: 5.5, 5.12.

Exercise session 6: Interior methods for nonlinear programming.
 In class: 6.2, 6.4
 Recommended: 6.6, Ex. 3 on Exam 2011-05-28.

Exercise session 7: Semidefinite programming.
 In class: 7.1 a) & b), an exercise similar to Ex. 5 on Exam 2012-06-02. If there is time, also an exercise similar to 7.5
 Recommended: 7.3, 7.6, 7.2.

Exercise session 8: Overview of the whole course.
 In class: Recap of theory/concepts in the course, and parts of an old exam (probably Exam 2012-06-02)
 Recommended: -