**Department:** Mathematics and Computer Sciences
**Division:** Applied Mathematics
**Level and Major:** Graduate

**Course Title:** Advanced None Linear Optimization 2
**Number of Credits:** 3
**Prerequisite:** Advanced None Linear Optimization 1
**Lecturer:**

**Course Description:**

**Course Goals and Objectives:**

**Course Topics:**

- Introducing numerical methods for optimization
- Line search methods
- Trust Region methods
- Penalty and Barrier methods
- Augmented Lagrangian method
- Gradient projection method
- SQP methods
- Introduction to variational inequalities
- Bi-level optimization Heuristic methods
- Modeling languages (GAMS, AMP)

**Reading Resources:**

**Evaluation:**