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

**Course Title:** Advanced Algorithms **Number of Credits:** 3 **Prerequisite: Lecturer:** 

**Course Description:** Hard Problems, Approximation Algorithms, Online Algorithms, Geometric Algorithms

**Course Goals and Objectives:** 

## **Course Topics:**

- Insert the additive algorithms: insertion sort, find a convex surface (surface additive), triangulation monotone polygons
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- Plane –Sweep Algorithm Finding the intersections of line segments Finding convex hulls: insertion hull revisited Contour of: union: of Rectangles

**Reading Resources:** 

**Evaluation:**