**Study programmes**: Master studies - Informatics

Course name: R313 - Geometric Algorithms

Lecturers: Predrag Janičić and other lecturers of the Department for Computer Science

**Status**: Optional

**ECTS**: 8

**Attendance prerequisites**: No prerequisite

Course aims: Acquiring knowledge about basic geometric algorithms.

**Course outcome**: After the course, the student is able to understand, construct and implement basic geometric algorithms and to apply them in real world problems.

**Course content**: Triangulation, polygon subdivisions, convex hull in plane and in space, Voronoi diagrams, arrangements, search and intersections.

## Literature:

Joseph o'Rourke: Computational geometry in C, Cambridge university press, 1994 (the lecturer can choose another appropriate literature)

Number of hours: 7 Lectures: 2 Tutorials: 3 Laboratory: - Research: 2

Teaching and learning methods: Frontal/Lectures/Exercises

**Assessment (maximal 100 points) Course assignments** points points Final exam Written exam Lectures 4 Exercises / Tutorials Oral exam 32 Written-oral exam Colloquia 60 Essay / Project 4