

Symbolic-Numeric Computing (CSc 85200)

Instructor: Alexey Ovchinnikov

Time: Thursdays, 9:30-11:30 am

Format: online synchronous lectures

Office hours: TBD

Course text: lecture notes, prepared as the class goes; additional reading if necessary, will be chosen from online sources that are available at no cost to the GC students

Prerequisites: linear algebra, calculus, and basic programming

Course topics: theory and practice in symbolic computation, with emphasis on Groebner bases; homotopy-based polynomial system solving; applications to cryptography, circuit design, computer vision, statistics (the coverage of the applications will depend on the students' interests and progress).

Assessment: pop quizzes (10%), midterm (40%), final project with live oral presentation (50%).