

## Syllabus

# Logika, skupovi i diskretna matematika

### 1. Language

All lectures will be held in English. Given the fact that linguistic diversity is rather limited in mathematics, this provides an opportunity to practice and improve your language skills without having a substantial adverse effect on understanding. A Croatian-English dictionary of selected mathematical words and phrases is available from the web page of this course, <http://www.math.hr/~kressner/diskret/>. Please let us know as early as possible if you experience troubles following the lectures. Assignments and written exams may be submitted in English or Croatian. Language skills will have no influence on the grades.

### 2. Schedule

- 10.10.05 sets and functions
- 11.10.05 propositions, elementary logic operations
- 24.10.05 tautologies, deduction rules, Boolean algebras and functions
- 25.10.05 logical circuits, predicate calculus
- 07.11.05 integers
- 08.11.05 relations, midterm exam
- 21.11.05 relations, lattices, combinatorics
- 22.11.05 combinatorics
- 05.12.05 recursions, difference equations
- 06.12.05 algebraic structures
- 19.12.05 algorithms
- 20.12.05 algorithms, midterm exam
- 09.01.06 computable functions
- 10.01.06 summary
- 23.01.06 exam preparation
- 24.01.05 final exam

Lectures take place on Mondays 8–11 AM and on Tuesdays 8–9 AM. Exercises take place on Mondays 4–6 PM and on Tuesdays 9–11 AM. This is a tentative arrangement; you are given due notice of possible changes.

### 3. Course material

The course will follow closely parts of the book *D. Žubrinić: Diskretna matematika, 2. izdanje, Element, Zagreb, 2002*. Regularly updated lecture notes and assignments are available in electronic form from the web page of this course.

### 4. Office hours

The easiest way of contact is to send an e-mail to [kressner@math.hr](mailto:kressner@math.hr). You may write in Croatian but writing in English is likely to have a positive effect on the response time. Additionally, there is an office hour on each of the Mondays listed above, at 11–12 AM in room B28.

### 5. Grading

The final grade will be determined by homework assignments (50%), two midterm exams (30%), as well as the final exam (20%). Homework assignments must be submitted until Monday 6 PM.