Course requirements
Introduction to Algebra 1.

Neptun-code: BMETE91AM36;   **Credits:** 9;
Period: 2023 Fall semester;   **Language:** English;

Lecturer (class A0): Márton Kristóf Erdélyi
Leader of the problem solving classes (A1): Csaba Tóth

Audit requirements:
To be eligible to take the exams at the end of the semester you will first need to fulfill the following requirements:

- Being present in at least 70% of the classes.

- Scoring at least 50% on Test 1 and Test 2 (max 20-20 points). T1 and T2 denote your scores on Tests 1 & 2.

- There will be home work sets weekly during the semester in 4 blocks each containing 3 home work sets. You will have to hand in your solutions until the beginning of Thursday's lecture next week. Late turn in is not allowed.

  You can work together on home works, help each other if you get stuck or even discuss the way of solutions. But you must write down the solution on your own. Mechanically copying the home works is strictly prohibited and will be punished according to the Code of Studies.

  In the solutions whole arguments are needed, simply the results are not sufficient. Each week you can get maximum 6 points, and the minimum requirement is at least 4 points from at least 2 sets in each block. HW denotes the total score from your home works.

- In class activity is strongly recommended: I encourage you to ask, present your solutions. You can earn up to 10 points with this, it will be denoted with A.

Repetitions:

- In case of failure you can repeat each test once in the last week of the semester.

- In case of further failure, you can still repeat each test once more in the first week of the exam period. But there is some administration necessary for this; please ask the details in class.

The real significance of fulfilling the audit requirements is that if you happen to fail the exams, you don't need to go through all the tests and home works again next year: you can proceed directly to the exams. But if you do not fulfill the audit requirements above, you will need to start from scratch next year.

Class grade:
Beyond the requirements above, you will need to take exams at the end of the semester in order to get a class grade.

- Exam 1 will be 120 minutes long. It consists of several standard problems to solve. You need to score at least 40 points (of 80). E1 denotes your score in Exam 1.

- Exam 2 will be an optional oral examination. I will ask some basic definitions, theorems and proofs of the given topics. E2 denotes your score in Exam 2, $-20 \leq E2 \leq 40$.

Your scores will be computed by the following formula:
Final score = ceil(T1 + T2 + min(40, 2/3 * HW + A) + E1 + E2).
Your grade will be determined by your final score as follows:

- 0 - 99 points Grade 1 (fail)

- 100 - 119 points Grade 2

- 120 - 139 points Grade 3

- 140 - 159 points Grade 4

- 160 - 200 points Grade 5

You can repeat the exam. For the exact details see the relevant part of the Code of Studies.

Consultation: we will agree on the details if requested.

Recommended literature:

- For Number Theory the relevant sections of David M. Burton: Elemetary Number Theory

- For Polynomials the relevant sections of E.J. Barbeau: Polynomials

- For Linear Algebra the relevant sections of Seymour Lipschutz: Beginning Linear Algebra

Budapest, 1st of September, 2023.

Márton Erdélyi