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Course requirements
Mathematics A1a - Calculus
2011/12/1

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Neptun id. : BMETE90AX00

Maximum allowed absence rate: 30%

Lecturer: Dr. Anikó Csákány

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Faculty Signature:

Midterm tests will be given:

Test	Week	Passing limit	Topics	Legal tools
# 0	2	40%	High school material	--
# 1	6	30%	Part 1 (see below)	Pocket calculator, formula sheet
# 2	12	30%	Part 2 (see below)	Pocket calculator, Formula sheet

In midterm tests # 1 and # 2 students can use a pocket calculator and a formula sheet handed out by the Department.

To get the faculty signature each of the three midterm tests should be successful.

Those who fail in all the three tests at the first attempt will not get the faculty signature.

Repeated Tests: two of the 3 tests can be retaken during the 13th week. Anyone can retake tests, not only the ones who failed. The last result counts. Students can increase and also decrease their former score in the repeated tests!

Signature Test: as a last chance to get the faculty signature there will be a Signature Test during the make up week: one unsuccessful test can be retaken here. (Extra fee will be charged for retaking a test during the make-up week.)

Midterm score: sum of points on midterm test #1 and test #2 (min. 12, max 40)

By the open book short qiuzes and take-home quizes students – only who meet the above requirements of faculty signature - may increase their total score by 10 more points.

Students already having the faculty signature:
- may retake the tests, in this case their midterm score equals to the sum of their test scores in test #1 and #2;
- may not retake the tests, in this case their midterm result is 30% (12 points).

Grading system: at the end of the semester there will be a written final exam (100 minutes) for 60 points. To be successful students are expected to reach at least 40% (24 points) on the final exam.

Total score = midterm score (min. 12, max 40 points) + points of final exam (min 24, max 60) + points of quizes (min 0, max 10)

The final grade for the subject based on the „total score" will be calculated according to the following chart:

- 39	failed
40 - 54	passed
55 - 69	satisfactory
70 - 84	good
85 – 110	excellent

Topics:

Part 1: Complex numbers. Vectors, lines and planes in 3-space. Numerical sequences. Limits of functions, continuity. Differentiation, rules of derivation. Tangent line. Mean value theorem.

Part 2: L'Hospital Rule. Extremal values, graphing functions. Optimization. Taylor's Theorem.. Indefinite integral. Tehniques of integration: integration by parts, substitution. Definite integral, Newton-Leibniz formula. Applications of integrations: area of regions.

Part 3: Applications of integrations: arc length of curves, volume and surface area of solids of rotation, centroid of regions. Improper integral.

Textbook: Thomas: Calculus, 11th edition, (International Edition), Addison Wesley

Budapest, Aug 11, 2011

Dr. Anikó Csákány