

## Tárgytematika / Course Description

### Calculus 1.

GKNB\_MSTA053

**Tárgyfelelős neve /**

**Teacher's name:** dr. Horváth Zoltán

**Félév / Semester:** 2020/21/2

**Beszámolási forma /**

**Assesment:** Folyamatos számonkérés

**Tárgy heti óraszám /**

**Teaching hours(week):** 1/1/0

**Tárgy féléves óraszám /**

**Teaching hours(sem.):** 0/0/0

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### OKTATÁS CÉLJA / AIM OF THE COURSE

The main objective of the course is to learning the basic concepts and methods, their computational tools and applications in engineering environment of one and several variable functions, including the differential and integral calculus of one variable functions.

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### TANTÁRGY TARTALMA / DESCRIPTION

Atoms:

- Vectors, coordinate systems
- Functions of one variable: basic functions, properties, differentiation and integrals
- Functions of several variables: types (scalar-vector, etc.), graphs
- Calculus with Matlab

Projects.

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### SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESMENT'S METHOD

Evaluation will take place as follows: written or oral assessment of atoms (50%) AND class and project participation (50%).

Written or oral assessment of atoms (50%): will evaluate students' knowledge related to the course material. The assessment takes place throughout the semester.

Class and project participation (50%):

- Class participation (20%) will be evaluated based on presence and the quality of questions and comments during class time. Throughout the semester at least three (3) substantive questions are expected form each student during class or consultation time
- Successful completion of project work related to the course throughout the semester (30%)

Assessment is performed on a scale of five grades. Grades will be determined as follows:

0-51% fail,  
52-61% passable,  
62-71% satisfactory,  
72-81% good,  
82-100% excellent.

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## **KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL**

<https://openstax.org/subjects/math>

Calculus 1, Calculus 3.