

Calculus 1

Structure, *zápočet* and exams

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Winter term 2026–2027

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Course structure

Time table

Tuesday

09:15-10:45

Lecture (Theory)

Wednesday

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11:00-12:30

Practice (Lab)

All the classes are in Dejvice: **T2:C3-340**.

Theory is introduced first and then applied in the practice class during the labs.

Essential information

Language	English
Institution	Czech Technical University in Prague
Format	Theory and practice classes
Credits	7
Term	Winter term 2026–2027
Teaching period	September 21, 2026–January 10, 2027

Attendance rules

Lectures

Attendance is not mandatory, but it is highly recommended.

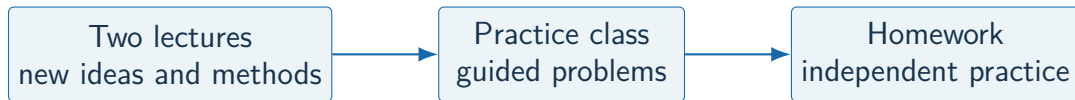
Practice

Attendance is mandatory.

At most **2 absences** are tolerated.

No *zápočet* for the ones who have more than 2 absences.

Every week connects explanation, practice and independent work



The 13-week learning path

Weeks 1–3 establish the language of calculus

Week 1 The real line, elementary functions, graphs, shifting and scaling.

Week 2 Limits and continuity.

Week 3 Derivatives: definition, properties and applications.

Functions and limits provide the foundation for differentiation.

Weeks 4–6 turn derivatives into powerful tools

Week 4 Mean Value Theorem and the L'Hospital's rule.

Week 5 Higher derivatives and Taylor polynomials.

Week 6 Local and global max and min, and graphing functions.

Midterm test during the Week 6 practice class

Weeks 7–10 develop integration from methods to applications

- Week 7** Indefinite integrals and basic integration methods.
- Week 8** Rational functions and further integration techniques.
- Week 9** Definite integrals and the Fundamental Theorem of Calculus.
- Week 10** Improper integrals, convergence tests and applications.

Weeks 11–13 move from sequences to function series

Week 11 Sequences, numerical series and convergence tests.

Week 12 Power series, uniform convergence and the Weierstrass test.

Week 13 Taylor and Maclaurin series.

Midterm test during the Week 11 practice class

Theory and practice cover the same progression

In lectures

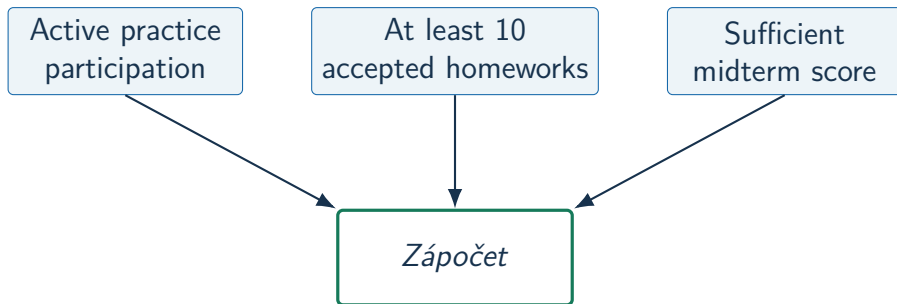
- Definitions and notation
- Main theorems
- Representative examples

In practice

- Standard techniques
- Guided problem solving
- Weekly homework preparation
- Group activities

Earning zápočet

Zápočet is the gateway to the final examination



Only students who obtain *zápočet* may take the final exam.

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- ★ At least **10 homeworks must be accepted**.
- ★ Submission alone is not enough: the homework must meet the acceptance standard.

The two midterms are short tests

When?

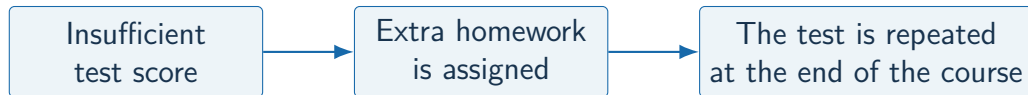
- Week 6 practice class
- Week 11 practice class

Format

- 45 minutes
- 3 problems

★ **The midterm score should be at least 9 points out of 20.**

An insufficient test score can be recovered



★ The recovery path **does not remove the other requirements** for *zápočet*.

The final exam

The written examination determines the course grade

Examination period	January–February; dates to be announced
Duration	90 minutes
Structure	6 problems
Theory component	1 of the 6 problems
Minimum passing score	50 points

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- ★ **IMPORTANT:** you can be called to come to the oral exam if required.

The written-exam score gives the initial grade

Points	Grade
0–49	F
50–59	E
60–69	D
70–79	C
80–89	B
90–100	A

This table refers to the final examination grade only.

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- ★ A failed examination may be repeated if an attempt remains.
- ★ A student may refuse a passing grade; the result is then recorded as **F**, and another attempt may be used if available.

All written tests are closed-book, AI-free and without devices

No textbooks

No notes

No calculators

No cellphones

No laptops

These rules apply to the midterms and the written final examination.

Materials and study strategy

The course webpage is the central information point

- Lecture notes and slides
- Practice topics and homework
- Homework solutions
- Midterm and final-exam information
- Published grades and useful links

sheldondantas.com/26-27-cvut/

A successful semester is built week by week

1. Attend the lectures and identify the main ideas.
2. Participate actively in every practice class.
3. Submit homework regularly and reach ten accepted solutions.
4. Practise solving problems without notes or AI.
5. Review definitions and theorems throughout the term.

A final remark

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A student caught cheating loses the right to obtain the course credit (*zápočet*).

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- ★ **In both situations**

Will be formally reported to the Faculty and an official complaint will be submitted.