

Numerical methods 2024 autumn (CIT)

CIT - Construction Information Technology Engineering Plants

courses	EN1
lecturers	P. Laky
place	K142
week	Wed 12-14
1.	M1-M2
2.	ERR
3.	NL1
4.	LIN1-2
5.	NL2
6.	REG-IP1
7.	MT (10.16.)
8.	-
9.	M2-IP2
10.	DIF-INT
11.	OP1
12.	OP2
13.	ODE1
14.	ODE2
1x90 min	

Deadlines for the practice exercises

Practice exercises (10x3p)	Available
1: Matlab onramp	09.04-09.29.
2: NL1	09.18-10.06.
3: LIN 1-2	09.25-10.13.
4: NL2	10.02-10.20.
5: REG,IP1	10.09-10.27.
6: IP2	10.30-11.10.
7: DIF	11.06-11.17.
8: INT	11.06-11.24.
9: OP1-2	11.13-12.01.
10: ODE 1-2	11.27-12.08.

10 practice exercises. The tasks are available for at least 1 week after the related topic.

Retake of the mid-term test: Dec. 11. 8-10

Days off: Sept.17. (3. week, Tue), Oct.23. (8. week, Wed), Nov. 1. (9. week, Fri), Nov.21. (12. week, Thu), Nov.29. (13. week, Fri)

	Lectures:	Code		Lectures:	Code
1.	Matlab basics 1.	M1	10.	Midterm test 1	MT1
2.	Matlab basics 2.	M2	11.	Matlab 3D Graphics (optional)	M3
3.	Computational errors	ERR	12.	2-D interpolation, regression	IP2
4.	Nonlinear equations	NL1	13.	Numerical differentiation	DIF
5.	System of linear equations 1.	LIN1	14.	Numerical integration	INT
6.	System of linear equations 2.	LIN2	15.	Optimization 1.	OP1
7.	System of nonlinear equations	NL2	16.	Optimization 2.	OP2
8.	1-D regression	REG	17.	Ordinary Differential Equations 1.	ODE1
9.	1-D interpolation	IP1	18.	Ordinary Differential Equations 2.	ODE2