Numerical methods 2024 autumn

courses	**EN1**	**EN5**
lecturers	Bence Ambrus	Kristóf Kapitány
place	Kf27c	K142
	+Mon 12-14	#Mon 16-18
week	Thu 8-10	Wed 10-12
1.	M1,M2	M1
2.	ERR	M2,ERR
3.	NL1,LIN1	NL1
4.	LIN2	LIN1,LIN2
5.	NL2,REG	NL2
6.	IP1	REG,IP1
7.	M3,IP2	M3-P1
8.	MT1 (10.24.)	MT1 (10.21.), -
9.	DER,INT	IP2
10.	OP1	DER,INT
11.	OP2,ODE1	OP1
12.	-	OP2,ODE1
13	ODE2,P2	ODE2
14.	MT2 (12.05.)	MT2 (12.02.),-
classes off:	**1x90 min**	**2x90 min**

Deadlines for the practice exercises

Practice exercises (10x3p)	Available
1: Matlab onramp	09.02-09.29.
2: NL1	09.16-10.06.
3: LIN 1-2	09.18-10.13.
4: NL2	09.30-10.20.
5: REG,IP1	10.02-10.27.
6: IP2	10.16-11.10.
7: DIF	10.28-11.17.
8: INT	10.31-11.24.
9: OP 1-2	11.07-12.01.
10: ODE 1-2	11.14-12.08.

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

Retake of the first mid-term test: Dec. 11. 8-10. K142, Retake of the second mid-term test: Dec.12. 16-18 K142

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	**12.**	Matlab 3D Graphics (optional)	M3
2.	Matlab basics 2.	M2	**13.**	2-D interpolation, regression	IP2
3.	Computational errors	ERR	**14.**	Numerical differentiation	DIF
4.	Nonlinear equations	NL1	**15.**	Numerical integration	INT
5.	System of linear equations 1.	LIN1	**16.**	Optimization 1.	OP1
6.	System of linear equations 2.	LIN2	**17.**	Optimization 2.	OP2
7.	System of nonlinear equations	NL2	**18.**	Ordinary Differential Equations 1.	ODE1
8.	1-D regression	REG	**19.**	Ordinary Differential Equations 2.	ODE2
9.	1-D interpolation	IP1	**20.**	(Practice 2 - overview - optional)	P2
10.	(Practice 1 - overview - optional)	P1	**21.**	Midterm test 2	MT2
11.	Midterm test 1	MT1			