Obuda University John von Neumann Faculty of Informatics			Institute of Applied Mathematics	
Name and code: NMXBM1PMNE Introduction to MATLAB programming **Credits*:2*** *Applied Mathematics MSc* *2019/20 year II. semester*				
Subject lecturers: Dr. Zoltán Léka				
Prerequisites (with code):	-			
Weekly hours:	Lecture: 0	Seminar.: 0	Lab. hours: 2	Consultation:0
Way of assessment:	Midyear grade			
Course description:				
Goal: Acquiring the fundamental knowledge and applications related to MATLAB. It serves the dual purpose of teaching computer programming and providing a background in MATLAB.				
Course description: variables, arrays, vectors and matrices; MATLAB functions, loops, decisions in MATLAB. Linear algebra with MATLAB; basics of 2-D plots, data visualization: frequencies, bar charts and histograms. File input/output operations.				

Lecture schedule	
Education week	*Topic*
1.	Introduction to MATLAB: variables and the workspace
2.	Arrays: vectors and matrices
3.	Operators, expressions and statements
4.	Functions
5.	Loops, repeating with *for*
6.	Decisions, selections
7.	1st midterm exam
8.	File input/output
9.	Elements of linear algebra with MATLAB
10.	Advanced matrix operations
11.	Introduction to graphics: 2-D graphs
12.	Frequencies, bar charts and histograms
13.	2nd midterm exam
14.	Summary, evaluation

Midterm requirements

Education week	*Topic*
7	Elements of MatLab
13	Linear algebra and basic graphics
14	Rewriting a classroom test

2020. 03. 18.

Final grade calculation methods

Achieved result	Grade
89%-100%	excellent (5)
76%-88%	good (4)
63%-75%	satisfactory (3)
51%-62%	passed (2)
0%-50%	failed (1)

Type of exam

Two midterms

Type of replacement

One of the midterms can be replaced in the final week

References

J. Michael Fitzpatrick, Á. Lédeczi - Computer Programming with MATLAB, ebook, 2013.

Recommended:
B. Hahn and D. Valentine, Essential MATLAB for Engineers and Scientists, Elsevier, 2002.