Óbuda University
Kandó Kálmán Faculty of Electrical Engineering

Electrical Engineering BSc English language training
Józsefváros site / Instrumentation and automation specialisation
Full time training
Curriculum "E"

Valid:
from 2017/2018 school year

with weekly hours: lectures (lc), practices (pr), laboratory (lb); with requirements (re); with credits (cr)

Nr	Subject code	Subject name	C.	Week-ly hours	Credit	Semesters																																				Prerequisites				
						1.					2.					3.					4.					5.					6.					7.										
						lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	Nr	Subject code	C.	Nr	Subject code	C.
	Basics of Natural Science total:			31	40	7	5			15	3	3	3		10	2	1			4	2	1			4	2				3	2				4										
1.	NMXAN1EBNE	Mathematics I.		6	6	3	3	0	a	6																																				
2.	KEXMA2ABNE	Mathematics II.		6	6						3	3	0	e	6																										1.	NMXAN1EBNE				
3.	KMXIA1ABNE	Informatics I.		2	3	2	0	0	e	3																																				
4.	KMXIA2ABNE	Informatics I. laboratory		2	2						0	0	2	a	2																										23.	KMXPR1ABNE	#			
5.	KMXIA3ABNE	Informatics II.		2	3																					2	0	0	e	3											24.	KMXPR2ABNE				
6.	KEXFI1ABNE	Physics I.		3	4											2	1	0	e	4																					10.	KEXTT1ABNE				
7.	KEXFI2ABNE	Physics II.		3	4																2	1	0	e	4																6.	KEXFI1ABNE				
8.	KEXVR1ABNE	Materials science for engineers		2	3	2	0	0	e	3																																				
9.	KEXVR2ABNE	Materials science for engineers laboratory		1	2						0	0	1	a	2																										8.	KEXVR1ABNE				
10.	KEXTT1ABNE	Basics of natural science		2	3	0	2	0	a	3																																				
11.	KEXMI1ABNE	Basics of safety technology, environment protection and quality assurance		2	4																										2	0	0	e	4						7.	KEXFI2ABNE				
	Economical and Human Knowledge total:			14	16	2				2	1	1			2						2				2	1	1			2	5	1			8										
12.	GGXKG1FBNE	Macroeconomics		2	2	2	0	0	a	2																																				
13.	GGXKG2FBNE	Microeconomics		2	2						1	1	0	a	2																										12.	GGXKG1FBNE				
14.	GSXVA1FBNE	Enterprise economics I.		2	2																2	0	0	a	2																					
15.	GSXVA2FBNE	Enterprise economics II.		2	2																					1	1	0	a	2											14.	GSXVA1FBNE				
16.	GVXME1FBNE	Basics of management		2	3																										1	1	0	a	3											
17.	GGXJI1FBNE	Law		2	2																										2	0	0	a	2											
18.		Obligatory optional subject	(4)	2	3																										2	0	0	a	3											
	Basics of Professional total:			64	70	5	3			12	11	5	4		19	12		11		26	2		8		10	2	1			3																
19.	KHXVT1ABNE	Electricity I.		3	4	3	0	0	e	4																																				
20.	KHXVT2ABNE	Electricity I. practice		3	4	0	3	0	a	4																															19.	KHXVT1ABNE	#			
21.	KHXVT3ABNE	Electricity II.		3	3						3	0	0	e	3																										1.	NMXAN1EBNE		20.	KHXVT2ABNE	
22.	KHXVT4ABNE	Electricity II. practice		4	3						0	3	1	a	3																										21.	KHXVT3ABNE	#			
23.	KMXPR1ABNE	Programming I.		2	2						2	0	0	a	2																										3.	KMXIA1ABNE				
24.	KMXPR2ABNE	Programming II.		5	5											2	0	3	a	5																					23.	KMXPR1ABNE				
25.	KEXMD1ABNE	Technical documentation		2	2																0	0	2	a	2																					
26.	KMXMT1ABNE	Measurements I.		4	4						2	0	2	e	4																										20.	KHXVT2ABNE				
27.	KMXMT2ABNE	Measurements II.		4	4											2	0	2	a	4																					26.	KMXMT1ABNE	(1)			
28.	KEXDT1ABNE	Digital technics I.		2	4	2	0	0	e	4																																				
29.	KEXDT2ABNE	Digital technics II.		3	3						2	1	0	e	3																										28.	KEXDT1ABNE				
30.	KEXDT3ABNE	Digital technics II. laboratory		2	2											0	0	2	a	2																					29.	KEXDT2ABNE				
31.	KEXEL1ABNE	Electronics I.		4	4						2	1	1	e	4																										20.	KHXVT2ABNE				
32.	KEXEL2ABNE	Electronics II.		4	4											2	0	2	e	4																					31.	KEXEL1ABNE				
33.	KMXAU1ABNE	Automation I.		4	5											2	0	2	e	5																					28.	KEXDT1ABNE				
34.	KHXHI1ABNE	Communication technics I.		2	3											2	0	0	e	3																					22.	KHXVT4ABNE				
35.	KHXHI2ABNE	Communication technics I. laboratory		2	2																0	0	2	a	2																34.	KHXHI1ABNE	#			
36.	KVXVE1ABNE	Electrical energetics		2	3											2	0	0	e	3																					22.	KHXVT4ABNE				
37.	KVXVE2ABNE	Electrical energetics laboratory		2	2																0	0	2	a	2																36.	KVXVE1ABNE	#			
38.	KEXET1ABNE	Electronics technology		4	4																2	0	2	e	4																8.	KEXVR1ABNE				
39.	KEXAM1ABNE	General engineering studies		3	3																					2	1	0	e	3											6.	KEXFI1ABNE				

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Nr	Subject code	Subject name	C.	Week-ly hours	Credit	Semesters																																								Prerequisites				
						1.					2.					3.					4.					5.					6.					7.												
						lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	Nr	Subject code	C.	Nr	Subject code	C.
	Common Courses of Speciality total:			28	39																9		3		16	5		8		16			2		4	1				3	2.	KMEMA21ANE		21.	KHTVT21ANE	
40.	KMXAZ1ABNE	Automatics I.		4	6																3	0	1	e	6																33.	KMXAU1ABNE				
41.	KMXAZ2ABNE	Automatics II.		3	4																					0	0	3	a	4											40.	KMXAZ1ABNE				
42.	KMXBR1ABNE	Embedded systems		5	6																3	0	2	e	6																29.	KEXDT2ABNE		32.	KEXEL2ABNE	
43.	KMXJK1ABNE	Signal processing I.		5	5																					2	0	3	e	5											27.	KMXMT2ABNE				
44.	KMXJK2ABNE	Signal processing II.		1	3																															1	0	0	e	3	43.	KMXJK1ABNE				
45.	KMXMA1ABNE	Instrumentation-automation I.		3	4																3	0	0	e	4																29.	KEXDT2ABNE		32.	KEXEL2ABNE	
46.	KMXMA2ABNE	Instrumentation-automation II.		3	3																					3	0	0	e	3											27.	KMXMT2ABNE				
47.	KMPPM1ABNE	Project I.		2	4																					0	0	2	a	4											33.	KMXAU1ABNE		45.	KMXMA1ABNE	
48.	KMPPM2ABNE	Project II.		2	4																										0	0	2	a	4						47.	KMPPM1ABNE				
	Obligatory Optional Groups (Module) of Subjects total:			17	20																					4		3		6	4		3		8	3				6							
	Automatic manufacturing systems		(5)																																													
49.	KMWGY1ABNE	Automatic manufacturing systems I.		7	6																					4	0	3	e	6											42.	KMXBR1ABNE				
50.	KMWGY2ABNE	Automatic manufacturing systems II.		7	8																										4	0	3	e	8						49.	KMWGY1ABNE				
51.	KMWIN1ABNE	Information systems		3	6																															3	0	0	e	6	50.	KMWGY2ABNE				
	Free Optional Courses total:		(4)	6	10																					2				3	2				3	2				4							
52.		Free optional subject 1		2	3																					2	0	0	a	3																	
53.		Free optional subject 2		2	3																										2	0	0	a	3												
54.		Free optional subject 3		2	4																															2	0	0	a	4							
	Subject of Thesis total:			6	15																																	6		15							
55.	KMDSD1ABNE	Thesis		6	15																															0	0	6	s	15	48.	KMPPM2ABNE				
	Criterion Courses total:		(6)	4								2					2																															
56.	GTTTE1ABNE	Physical education I.		2	0						0	2	0	a	0																																	
57.	GTTTE2ABNE	Physical education II.		2	0											0	2	0	a	0																					56.	GTTTE1ABNE	#			
		Total:		170	210	14	8	0		29	15	11	7		31	14	3	11		30	15	1	11		32	16	2	11		33	13	1	5		27	6	0	6		28							
		Weekly hours total:				22					33					28					27					29					19					12												
		Examination (e):							4					5					5					5					5					2					2									
		Assignment (a):							4					6					4					4					4					5					1									
		Signature (s):							0					0					0					0					0					0					1									

Comments:

Courses signed by character # can be started paralelly, if necessary.
(1) Sign of course makes necessary to fullfill prerequisites.
(2) The semester of the placement of the given subject is determined by the institution depending on the number of students.
(3) The subject is taught in an e-learning or blended learning system, and the detailed half-year requirement of the subject is the guide.
(4) List of obligatory optional courses and free optional courses are included on the next table.
(5) All subjects of the chosen subject group are required.
(6) The criterion requirement is a mandatory requirement in the curriculum that does not have a credit point. (TVSZ. 35. § (4))

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Nr	Subject code	Subject name	C.	Week-ly hours	Credit	Semesters																																				Prerequisites				
						1.					2.					3.					4.					5.					6.					7.										
						lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	Nr	Subject code	C.	Nr	Subject code	C.
	Obligatory Optional Courses of Branch Economical and Human Knowledge																																													
58.	GGWUK1ABNE	Business communication		2	3																										2	0	0	a	3											
59.	GGWSZ1ABNE	Sociology		2	3																										2	0	0	a	3											
	Free Optional Courses		(7)																																											
60.	KMVMO1ABNE	Metrology		2	3																					2	0	0	a	3																
61.	KMVOM1ABNE	Object oriented methodology		2	4																															2	0	0	a	4						
62.	KMVRO1ABNE	Real-time operating systems		2	4																															2	0	0	a	4						

Comments: (7) In addition to the items listed here, additional optional subjects can be found in the Neptun system.

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Nr	Subject code	Subject name	C.	Week-ly hours	Credit	Semesters																				
						5.					6.					7.					8.					
						lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr
	Cooperative Education total:			8	60					12					12					12	8				24
	KMOSG1ABNE	Practice in profession I.	(8)		12				a	12															
	KMOSG2ABNE	Practice in profession II.	(8)		12									a	12										
	KMOSG3ABNE	Practice in profession III.	(8)		12														a	12					
	KMOSG4ABNE	Practice in profession IV.	(8)		12																			a	12
		Optional special subject I.		2	3																2	0	0	e	3
		Optional special subject II.		2	3																2	0	0	e	3
		Optional special subject III.		2	3																2	0	0	e	3
		Optional special subject IV.		2	3																2	0	0	e	3

Comments: (8) Weekly hours of practice in profession is given by the cooperative contract.

Conditions of cooperative education at Electrical Engineering BSc English language training:

1. Students have to fulfill minimum 120 credits before starting cooperative education.
2. Courses of Practical (cooperative) Education are fixed by Council of the Faculty year by year.

Subjects at Closing Examination:

Subject code	Subject name
Automatic manufacturing systems module:	
1. exam subject: Aggregate from the Common Courses of Speciality	
KMXAU1ABNE	Automation I.
KMXBR1ABNE	Embedded systems
2. exam subject: Aggregate from the Obligatory Optional Groups (Module) of Subjects	