## - Computer Science (EN) Bachelor

Course Titles in GREEN shows the courses which has EQUIVALENT Course in the Active YEAR, 2022 Take into consideration that, only courses in active year will be OPENED in the Course Section Management.

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Nº	code	title		th	pr	cr	ects	req
1	CSS 105	Fundamentals of Programming		2	0+2	4	5	
2	INF 106	Information and Communications Technologies (Computer Science)		1	2+0	3	5	
3	MAT 151	Linear Algebra		2	0+1	3	5	
4	MAT 153	Mathematics for Computer Science 1		2	0+2	3	5	
5	MDE XXX	*[NAE] Physical Education 1 (MDE 241, MDE 245, MDE 249, MDE 253, MDE 257, MDE 261, MDE 265, MDE 269, MDE 273, MDE 277)		0	1+0	1	2	
6	XXX 1XX	*[NAE] Turkish language 1 (MDE 131, MDE 135, MDE 201, MDE 205, MDE 209, MDE 213, MDE 217, MDE 221, MDE 225, MDE 229, MDE 233, MDE 237)		0	2+0	2	3	
7	XXX 1XX	*[NAE] Foreign language 1 (MDE 001, MDE 190, MDE 192)		1	2+0	3	5	

code	title	th	pr	cr	ects	req
CSS 108	Programming Technologies and Educational Practice	2	0+2	3	5	PR
CSS 152	Physics 1	2	1+0	3	5	
MAT 154	Mathematics for Computer Science 2	2	0+2	4	5	PR
MAT 156	Discrete Mathematics	2	1+0	3	5	
MDE XXX	*[NAE] Physical Education 2 (MDE 242, MDE 246, MDE 250, MDE 254, MDE 258, MDE 262, MDE 266, MDE 270, MDE 274, MDE 278)	0	1+0	1	2	
XXX 1XX	*[NAE] Turkish language 2 (MDE 132, MDE 136, MDE 202, MDE 206, MDE 210, MDE 214, MDE 218, MDE 222, MDE 226, MDE 230, MDE 234, MDE 238)	0	2+0	2	3	
XXX 1XX	*[NAE] Foreign language 2 (MDE 002, MDE 191, MDE 194)	0	3+0	3	5	
	CSS 108  CSS 152  MAT 154  MAT 156  MDE XXX  XXX	CSS 108 Programming Technologies and Educational Practice  CSS 152 Physics 1  MAT Mathematics for Computer Science 2  MAT Discrete Mathematics  * [NAE] Physical Education 2 (MDE 242, MDE 246, MDE 250, MDE 254, MDE 258, MDE 266, MDE 274, MDE 274, MDE 274, MDE 274, MDE 274, MDE 274, MDE 213, MDE 136, MDE 132, MDE 136, MDE 210, MDE 214, MDE 218, MDE 222, MDE 226, MDE 234, MDE 234, MDE 238)  * [NAE] Foreign language 2 (MDE 1002, MDE 191, MDE 1002, MDE 191, MDE	CSS 108 Programming Technologies and Educational Practice  CSS 152 Physics 1 2  MAT Mathematics for Computer Science 2 2  MAT Discrete Mathematics  *[NAE] Physical Education 2 (MDE 242, MDE 246, MDE 250, MDE 254, MDE 258, MDE 266, MDE 270, MDE 274, MDE 274, MDE 278)  *[NAE] Turkish language 2 (MDE 132, MDE 136, MDE 202, MDE 210, MDE 214, MDE 218, MDE 222, MDE 210, MDE 214, MDE 218, MDE 222, MDE 234, MDE 234, MDE 234, MDE 238)  *[NAE] Foreign language 2 (MDE 1002, MDE 191, MDE 002, MDE 191, MDE 002, MDE 191, MDE 002, MDE 191, MDE 002, MDE 191, MDE	CSS 108         Programming Technologies and Educational Practice         2         0+2           CSS 152         Physics 1         2         1+0           MAT 154         Mathematics for Computer Science 2         2         0+2           MAT 156         Discrete Mathematics         2         1+0           MDE 242, MDE 246, MDE 242, MDE 250, MDE 254, MDE 250, MDE 254, MDE 258, MDE 262, MDE 258, MDE 266, MDE 270, MDE 274, MDE 278)         0         1+0           XXX 1XX 1XX 1XX 1XX 218, MDE 202, MDE 206, MDE 210, MDE 214, MDE 218, MDE 222, MDE 210, MDE 214, MDE 218, MDE 230, MDE 234, MDE 230, MDE 234, MDE 238)         0         2+0           XXX 1XX 1XX 1XX 1XX 1XX 1XX 1XX 1XX 1XX	CSS 108       Programming Technologies and Educational Practice       2       0+2       3         CSS 152       Physics 1       2       1+0       3         MAT 5154       Mathematics for Computer Science 2       2       0+2       4         MAT 156       Discrete Mathematics       2       1+0       3         MDE 254       MAE] Physical Education 2 (MDE 242, MDE 246, MDE 250, MDE 254, MDE 258, MDE 262, MDE 258, MDE 262, MDE 258, MDE 266, MDE 270, MDE 274, MDE 278)       0       1+0       1         XXX 1XX 1XX 1XX 1XX 1XX 1XX 1XX 1XX 1XX	CSS 108       Programming Technologies and Educational Practice       2       0+2       3       5         CSS 152       Physics 1       2       1+0       3       5         MAT Mathematics for 154       2       0+2       4       5         MAT Discrete 156       2       1+0       3       5         MAT Discrete Mathematics       2       1+0       3       5         MDE 242, MDE 246, MDE 246, MDE 242, MDE 246, MDE 250, MDE 254, MDE 258, MDE 254, MDE 258, MDE 262, MDE 258, MDE 262, MDE 266, MDE 270, MDE 274, MDE 278)       0       1+0       1       2         XXX 132, MDE 136, MDE 202, MDE 206, MDE 214, MDE 214, MDE 218, MDE 222, MDE 226, MDE 230, MDE 234, MDE 238, MDE 234, MDE 238)       0       2+0       2       3         XXX 1 anguage 2 (MDE 230, MDE 234, MDE 238)       0       3+0       3       5

Local Credit	ECTS
Theoretical course:19	Theoretical course:30
Non Theoretical course:0	Non Theoretical course: <b>0</b> .
Sum: <b>19</b>	Sum: <b>30</b>

Local Credit	ECTS
Theoretical course:19	Theoretical course:30
Non Theoretical course:0	Non Theoretical course: <b>0</b> .
Sum: <b>19</b>	Sum: <b>30</b>

3								
Nο	code	title		th	pr	cr	ects	req
1	CSS 206	Database Management Systems 1		1	2+0	3	5	
2 <b>*</b>	CSS 215	Introduction to Algorithms		2	0+1	3	5	PR
3	MAT 254	Mathematical		2	1+0	3	5	
4	MDE XXX	*[NAE] Physical Education 3 (MDE 243, MDE 247, MDE		0	1+0	1	2	

		4					
Nº	code	title	th	pr	cr	ects	req
1 <b>*</b>	CSS 220	Advanced Algorithms	2	0+1	3	5	PR
2	CSS 341	Computer organization and architecture	2	1+0	3	5	
3	MDE 172	Philosophy	2	1+0	3	5	
4	MDE XXX	*[NAE] Physical Education 4 (MDE 244, MDE 248, MDE 252, MDE 256, MDE	0	1+0	1	2	

		251, MDE 255, MDE 259, MDE 263, MDE 267, MDE 271, MDE 275, MDE 279)					
5	XXX 2XX	*[NAE] Kazakh / Russian language 1 (MDE 111, MDE 113, MDE 115, MDE 117, MDE 121, MDE 123, MDE 125, MDE 127)	0	3+0	3	5	
6	XXX 2XX	*[NAE] Turkish language 3 (MDE 133, MDE 137, MDE 203, MDE 207, MDE 211, MDE 215, MDE 219, MDE 223, MDE 227, MDE 231, MDE 235, MDE 239)	0	2+0	2	3	
7	XXX xxx	*[AE] Track electives 1 (INF 231/INF 232/CSS 250/ CSS 328)	2	1+0	3	5	

Local Credit	ECTS
Theoretical course:18	Theoretical course:30
Non Theoretical course:0	Non Theoretical course: <b>0</b> .
Sum: <b>18</b>	Sum: <b>30</b>

		260, MDE 264, MDE 268, MDE 272, MDE 276, MDE 280)					
5	XXX 2XX	*[NAE] Turkish language 4 (MDE 134, MDE 138, MDE 204, MDE 208, MDE 212, MDE 216, MDE 220, MDE 224, MDE 228, MDE 232, MDE 236, MDE 240)	0	2+0	2	3	
6	XXX 2XX	*[NAE] Kazakh / Russian language 2 (MDE 112, MDE 114, MDE 116, MDE 118, MDE 122, MDE 124, MDE 126, MDE 128)	0	3+0	3	5	
7	XXX	*[AE] Track electives 2 (CSS 217/CSS 254/ INF 423)	1	2+0	3	5	

Local Credit	ECTS
Theoretical course:18	Theoretical course:30
Non Theoretical course: <b>0</b>	Non Theoretical course: <b>0</b> .
Sum: <b>18</b>	Sum: <b>30</b>

	5									
Nº	code	title		th	pr	cr	ects	req		
1	CSS 312	Computer Networks 1		1	2+0	3	5			
2	CSS 382	Internship 1		0	1+0	1	2			
3	MDE 151	Module of Social and Political Knowledge (Political Science)		1	0+0	1	2			
4	MDE 152	Module of Social and Political Knowledge (Sociology)		1	0+0	1	2			
5	MDE 171	Modern History of Kazakhstan		2	1+0	3	5			
6	CSS 3XX	*[AE]Track electives 3 (CSS 342, CSS 309, CSS 324)		2	1+0	3	5			
7	CSS 3XX	*[AE]Track electives 4 (CSS 319/CSS 346/CSS 439)		2	1+0	3	5			
8	XXX 3XX	*[AE] General area electives 1 (CSS 214/ CSS		2	1+0	3	5			

		6					
Nο	code	title	th	pr	cr	ects	req
1	MDE 153	Module of Social and Political Knowledge (Cultural Studies)	1	0+0	1	2	
2	MDE 154	Module of Social and Political Knowledge (Psychology)	1	0+0	1	2	
3	CSS 3XX	*[AE] General area electives 2 (CSS 409/ INF 368/ INF 305/ CSS 464/ CSS 306/ INF 349)	2	1+0	3	5	
4	CSS 3XX	*[AE] Track electives 5 (CSS 356, INF 345, INF 337, INF 435)	2	1+0	3	5	
5	CSS 3XX	*[AE] Track electives 6 (CSS 323, CSS 345, INF 324, INF 376)	2	1+0	3	5	
6	XXX 32X	*[AE] ABET electives (INF	2	1+0	3	5	

361/ INF 328)
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Local Credit	ECTS
Theoretical course:14	Theoretical course:24
Non Theoretical course:4	Non Theoretical course: <b>7</b> .
Sum: <b>18</b>	Sum: <b>31</b>

		251/ CSS 325)					
7	XXX 3XX	*[NAE] General education elective (MDE 161, MDE 162, MDE 164, MDE 166, MDE 167)	1	2+0	3	5	

Local Credit	ECTS
Theoretical course:17	Theoretical course:29
Non Theoretical course:0	Non Theoretical course:0.
Sum: <b>17</b>	Sum: <b>29</b>

	7									
Nº	code	title		th	pr	cr	ects	req		
1	CSS 407	Industrial practice 2		0	3+0	3	5			
2	CSS 410	Research tools and methods		2	1+0	3	5			
3	CSS 43X	*[AE] General area electives 4 (CSS 415, CSS 465)		2	1+0	3	5			
4	CSS 4XX	*[AE] General area electives 6 (MAT 364/ INF 261)		2	1+0	3	5			
5	CSS 4XX	*[AE] General area electives 5 (INF 415/INF 228/INF 360)		2	1+0	3	5			
6	CSS 4XX	*[AE] General area electives 7 (INF 405/ INF 263/CSS 446)		2	1+0	3	5			

Local Credit	ECTS
Theoretical course:15	Theoretical course:25
Non Theoretical course:3	Non Theoretical course:5.
Sum: <b>18</b>	Sum: <b>30</b>

	8										
Νō	code	title		th	pr	cr	ects	req			
1 <b>*</b>	CSS 408	Senior Project		0	4+0	4	6	PR			
2	CSS 4XX	*[NTE] Graduation thesis / Graduation exam (CSS 492, CSS 493)		0	8+0	8	12				
3	XXX xxx	*[AE] General area electives 8 (CSS 412/CSS 497)		0	8+0	8	12				

Local Credit	ECTS
Theoretical course:12	Theoretical course:18
Non Theoretical course:8	Non Theoretical course:12.
Sum: <b>20</b>	Sum: <b>30</b>

Total Local Credit	Total ECTS
Theoretical course:132	Theoretical course:216
Non Theoretical course:15	Non Theoretical course:24
Sum: <b>147</b>	Sum: <b>240</b>

## **ELECTIVE COURSES**

<u>AE</u>	<u>- Are</u>	<u>a elective</u>								
Nº	req	code	title	th	pr	cr	ects	type	term	type
1		CSS 217	Software Architecture and Design Patterns	1	2+0	3	5	Elective	4	AE

2	PR	CSS 250	Electronics	2	0+2	3	5	Elective	3	AE
3	PR	CSS 254	Digital design	1	2+0	3	5	Elective	4	AE
4	AR	CSS 306	Cyber Security	1	2+0	3	5	Elective	6	AE
5	AR PR	CSS 309	Low-level Architecture	2	0+2	3	5	Elective	5	AE
6	AR	CSS 319	Software Testing and Validation	2	1+0	3	5	Elective	5	AE
7	AR	CSS 323	Product Management	2	1+0	3	5	Elective	6	AE
8	AR PR	CSS 324	Introduction to Machine Learning	2	1+0	3	5	Elective	5	AE
9	AR	CSS 325	Biology	1	2+0	3	5	Elective	6	AE
10		CSS 328	Introduction to Data Analysis	2	1+0	3	5	Elective	3	AE
11	AR	CSS 342	Software engineering	2	1+0	3	5	Elective	5	AE
12	AR	CSS 345	Advanced computer architecture	2	1+0	3	5	Elective	6	AE
13	AR	CSS 346	FPGA Programming	2	1+0	3	5	Elective	5	AE
14		CSS 356	Introduction to IoT	1	2+0	3	5	Elective	6	AE
15	AR	CSS 409	Computer Networks 2	0	3+0	3	5	Elective	6	AE
16		CSS 412	Industrial practice 3	0	8+0	8	12	Elective	8	AE
17	AR	CSS 415	IT Management	3	0+0	3	5	Elective	7	Al
18	AR	CSS 439	Distributed Big Data Systems	2	1+0	3	5	Elective	5	Al
19	AR	CSS 446	IT audit	2	1+0	3	5	Elective	7	A
20	AR	CSS 464	FAANG	2	1+0	3	5	Elective	6	Al
21	AR	CSS 465	Project Management	2	1+0	3	5	Elective	7	Al
22		CSS 497	Pregraduational Internship	0	8+0	8	12	Elective	8	Al
23	AR	INF 228	UX/UI design	2	1+0	3	5	Elective	7	Al
24		INF 231	Web programming: front end	2	1+0	3	5	Elective	3	A
25		INF 232	Web programming: back end	2	1+0	3	5	Elective	3	Al
26	AR	INF 251	Physics 2	2	0+1	3	5	Elective	6	Al
27	AR	INF 261	Game Physics	1	2+0	3	5	Elective	7	Al
28	AR	INF 263	Applied Graph Theory	2	1+0	3	5	Elective	7	A
29	AR	INF 305	Database Management Systems 2	1	2+0	3	5	Elective	6	A
30	AR	INF 324	Computer vision	2	1+0	3	5	Elective	6	Α
31	PR	INF 337	Deep Learning	2	0+1	3	5	Elective	6	Α
32	AR	INF 345	Fundamentals of DevOps	2	1+0	3	5	Elective	6	A
33	AR	INF 349	3D animation and visual effects	2	1+0	3	5	Elective	6	A
34	AR	INF 360	IT-law	2	1+0	3	5	Elective	7	A
35	AR	INF 368	The Go programming language	1	2+0	3	5	Elective	6	Al
36	AR	INF 376	Natural Language Processing	2	1+0	3	5	Elective	6	Al
37	AR	INF 405	Personal Development in Computer Science	3	0+0	3	5	Elective	7	A
38	AR	INF 415	Leadership in IT	2	1+0	3	5	Elective	7	Al
39		INF 423	Statistics and Visualization for Data Analysis	2	1+0	3	5	Elective	4	Al

40	INF 435	Applied Bioinformatics	2	1+0	3	5	Elective	6	AE
41 A	AR MAT 364	Cryptography	2	1+0	3	5	Elective	7	AE

Nº	req	code	title	th	pr	cr	ects	type	term	typ
1		MDE 111	Kazakh Language 1 (A1 level/ for foreigners)	0	3+0	3	5	Elective	3	N/
2		MDE 112	Kazakh Language 2 (A2 level/for foreigners)	0	3+0	3	5	Elective	4	N/
3		MDE 113	Kazakh Language 1 (B1 level)	0	3+0	3	5	Elective	3	N/
4		MDE 114	Kazakh Language 2 (B1 level)	0	3+0	3	5	Elective	4	N
5		MDE 115	Kazakh Language 1 (B2 level)	0	3+0	3	5	Elective	3	N.
6		MDE 116	Kazakh Language 2 (B2 level)	0	3+0	3	5	Elective	4	N.
7		MDE 117	Kazakh Language 1 (C1 level)	0	3+0	3	5	Elective	3	N.
8		MDE 118	Kazakh Language 2 (C1 level)	0	3+0	3	5	Elective	4	N
9		MDE 121	Russian Language 1 (A1 level/ for foreigners)	0	3+0	3	5	Elective	3	N
10		MDE 122	Russian Language 2 (A2 level/ for foreigners)	0	3+0	3	5	Elective	4	N
11		MDE 123	Russian Language 1 (B1 level)	0	3+0	3	5	Elective	3	N
12		MDE 124	Russian Language 2 (B1 level)	0	3+0	3	5	Elective	4	N
13		MDE 125	Russian Language 1 (B2 level)	0	3+0	3	5	Elective	3	N
14		MDE 126	Russian Language 2 (B2 level)	0	3+0	3	5	Elective	4	Ν
15		MDE 127	Russian Language 1 (C1 level)	0	3+0	3	5	Elective	3	Ν
16		MDE 128	Russian Language 2 (C1 level)	0	3+0	3	5	Elective	4	١
17		MDE 131	Turkish Language 1 (A1 level)	0	2+0	2	3	Elective	1	١
18		MDE 132	Turkish Language 2 (A1 level)	0	2+0	2	3	Elective	2	١
19		MDE 133	Turkish Language 3 (A2 level)	0	2+0	2	3	Elective	3	Ν
20		MDE 134	Turkish Language 4 (A2 level)	0	2+0	2	3	Elective	4	٨
21		MDE 135	Turkish Language 1 (B1 level) ( Media club)	0	2+0	2	3	Elective	1	٨
22		MDE 136	Turkish Language 2 (B1 level) ( Media club)	0	2+0	2	3	Elective	2	٨
23		MDE 137	Turkish Language 3 (B2 level) ( Media club)	0	2+0	2	3	Elective	3	٨
24		MDE 138	Turkish Language 4 (B2 level) ( Media club)	0	2+0	2	3	Elective	4	٨
25		MDE 161	Economy	2	1+0	3	5	Elective	6	Ν
26		MDE 162	Law	2	1+0	3	5	Elective	6	Ν
27		MDE 164	Ecology	2	1+0	3	5	Elective	6	Ν
28		MDE 166	Entrepreneurship	2	1+0	3	5	Elective	6	Ν
29		MDE 167	Leadership	2	1+0	3	5	Elective	6	٨
30		MDE 190	Foreign Language 1 (English for Specific Purposes - B1 level )	0	3+0	3	5	Elective	1	N
31		MDE 191	Foreign Language 2 (English for Specific Purposes - B1+ level )	0	3+0	3	5	Elective	2	Ν
32		MDE 192	Foreign Language 1 (English for Specific Purposes - B2 level)	0	3+0	3	5	Elective	1	Ν
33		MDE 194	Foreign Language 2 (English for Specific Purposes - B2+	0	3+0	3	5	Elective	2	Ν

34	MDF 201	level)  Turkich Language 1 (R1 level) (Debate club)	0	2+0	2	3	Elective	1	NA
	MDE 201	Turkish Language 1 (B1 level) (Debate club)						1	
35	MDE 202	Turkish Language 2 (B1 level) (Debate club)	0	2+0	2	3	Elective	2	NA
36	MDE 203	Turkish Language 3 (B2 level) (Debate club)	0	2+0		3	Elective	3	NA
37	MDE 204	Turkish Language 4 (B2 level) (Debate club)	0	2+0	2	3	Elective	4	NA
38	MDE 205	Turkish Language 1 (B1 level) ( Cooking club )	0	2+0	2	3	Elective	1	NA
39	MDE 206	Turkish Language 2 (B1 level) ( Cooking club )	0	2+0	2	3	Elective	2	NA
40	MDE 207	Turkish Language 3 (B2 level) ( Cooking club )	0	2+0	2	3	Elective	3	NΑ
41	MDE 208	Turkish Language 4 (B2 level) ( Cooking club )	0	2+0	2	3	Elective	4	N.A
42	MDE 209	Turkish Language 1 (B1 level) ( Storytelling club)	0	2+0	2	3	Elective	1	N/
43	MDE 210	Turkish Language 2 (B1 level) ( Storytelling club)	0	2+0	2	3	Elective	2	N/
44	MDE 211	Turkish Language 3 (B2 level) ( Storytelling club)	0	2+0	2	3	Elective	3	NA
45	MDE 212	Turkish Language 4 (B2 level) ( Storytelling club)	0	2+0	2	3	Elective	4	N/
46	MDE 213	Turkish Language 1 (B1 level) (Singing club)	0	2+0	2	3	Elective	1	N/
47	MDE 214	Turkish Language 2 (B1 level) (Singing club)	0	2+0	2	3	Elective	2	N/
48	MDE 215	Turkish Language 3 (B2 level) (Singing club)	0	2+0	2	3	Elective	3	N/
49	MDE 216	Turkish Language 4 (B2 level) (Singing club)	0	2+0	2	3	Elective	4	N
50	MDE 217	Turkish Language 1 (B1 level) (Translation club )	0	2+0	2	3	Elective	1	N.
51	MDE 218	Turkish Language 2 (B1 level) (Translation club )	0	2+0	2	3	Elective	2	N.
52	MDE 219	Turkish Language 3 (B2 level) (Translation club )	0	2+0	2	3	Elective	3	N.
53	MDE 220	Turkish Language 4 (B2 level) (Translation club )	0	2+0	2	3	Elective	4	N
54	MDE 221	Turkish Language 1 (B1 level) (Poetry club)	0	2+0	2	3	Elective	1	N
55	MDE 222	Turkish Language 2 (B1 level) (Poetry club)	0	2+0	2	3	Elective	2	N.
56	MDE 223	Turkish Language 3 (B2 level)(Poetry club)	0	2+0	2	3	Elective	3	N.
57	MDE 224	Turkish Language 4 (B2 level) (Poetry club)	0	2+0	2	3	Elective	4	N.
58	MDE 225	Turkish Language 1 (B1 level) (Movie club)	0	2+0	2	3	Elective	1	N
59	MDE 226	Turkish Language 2 (B1 level) (Movie club)	0	2+0	2	3	Elective	2	N
60	MDE 227	Turkish Language 3 (B2 level) (Movie club)	0	2+0	2	3	Elective	3	N
61	MDE 228	Turkish Language 4 (B2 level) (Movie club)	0	2+0	2	3	Elective	4	N.
62	MDE 229	Turkish Language 1 (B1 level) (Tourism club)	0	2+0	2	3	Elective	1	N.
63	MDE 230	Turkish Language 2 (B1 level) (Tourism club)	0	2+0	2	3	Elective	2	N.
64	MDE 231	Turkish Language 3 (B2 level) (Tourism club)	0	2+0	2	3	Elective	3	N.
65	MDE 232	Turkish Language 4 (B2 level) (Tourism club)	0	2+0	2	3	Elective	4	N.
66	MDE 233	Turkish Language 1 (B1 level) (Drama club)	0	2+0	2	3	Elective	1	N.
67	MDE 234	Turkish Language 2 (B1 level) (Drama club)	0	2+0	2	3	Elective	2	N.
68	MDE 235	Turkish Language 3 (B2 level) (Drama club)	0	2+0	2	3	Elective	3	N
69	MDE 236	Turkish Language 4 (B2 level) (Drama club)	0	2+0	2	3	Elective	4	N.
70	MDE 237	Turkish Language 1 (B1 level) (Art club)	0	2+0	2	3	Elective	1	N.
71	MDE 238	Turkish Language 2 (B1 level) (Art club)	0	2+0	2	3	Elective	2	N/

72	MDE 239	Turkish Language 3 (B2 level) (Art club)	0	2+0	2	3	Elective	3	NAE
73	MDE 240	Turkish Language 4 (B2 level) (Art club)	0	2+0	2	3	Elective	4	NAE
74	MDE 241	Physical Education 1 (Basketball)	0	1+0	1	2	Elective	1	NAE
75	MDE 242	Physical Education 2 (Basketball)	0	1+0	1	2	Elective	2	NAE
76	MDE 243	Physical Education 3 (Basketball)	0	1+0	1	2	Elective	3	NAE
77	MDE 244	Physical Education 4 (Basketball)	0	1+0	1	2	Elective	4	NAE
78	MDE 245	Physical Education 1 (Ping Pong)	0	1+0	1	2	Elective	1	NAE
79	MDE 246	Physical Education 2 (Ping Pong)	0	1+0	1	2	Elective	2	NAE
80	MDE 247	Physical Education 3 (Ping Pong)	0	1+0	1	2	Elective	3	NAE
81	MDE 248	Physical Education 4 (Ping Pong)	0	1+0	1	2	Elective	4	NAE
82	MDE 249	Physical Education 1 (Volleyball)	0	1+0	1	2	Elective	1	NAE
83	MDE 250	Physical Education 2 (Volleyball)	0	1+0	1	2	Elective	2	NAE
84	MDE 251	Physical Education 3 (Volleyball)	0	1+0	1	2	Elective	3	NAE
85	MDE 252	Physical Education 4 (Volleyball)	0	1+0	1	2	Elective	4	NAE
86	MDE 253	Physical Education 1 (Athletics)	0	1+0	1	2	Elective	1	NAE
87	MDE 254	Physical Education 2 (Athletics)	0	1+0	1	2	Elective	2	NAE
88	MDE 255	Physical Education 3 (Athletics)	0	1+0	1	2	Elective	3	NAE
89	MDE 256	Physical Education 4 (Athletics)	0	1+0	1	2	Elective	4	NAE
90	MDE 257	Physical Education 1 (Toguz kumalak)	0	1+0	1	2	Elective	1	NAE
91	MDE 258	Physical Education 2 (Toguz kumalak)	0	1+0	1	2	Elective	2	NAE
92	MDE 259	Physical Education 3 (Toguz kumalak)	0	1+0	1	2	Elective	3	NAE
93	MDE 260	Physical Education 4 (Toguz kumalak)	0	1+0	1	2	Elective	4	NAE
94	MDE 261	Physical Education 1 (Chess)	0	1+0	1	2	Elective	1	NAE
95	MDE 262	Physical Education 2 (Chess)	0	1+0	1	2	Elective	2	NAE
96	MDE 263	Physical Education 3 (Chess)	0	1+0	1	2	Elective	3	NAE
97	MDE 264	Physical Education 4 (Chess)	0	1+0	1	2	Elective	4	NAE
98	MDE 265	Physical Education 1 (Freestyle Wrestling)	0	1+0	1	2	Elective	1	NAE
99	MDE 266	Physical Education 2 (Freestyle Wrestling)	0	1+0	1	2	Elective	2	NAE
100	MDE 267	Physical Education 3 (Freestyle Wrestling)	0	1+0	1	2	Elective	3	NAE
101	MDE 268	Physical Education 4 (Freestyle Wrestling)	0	1+0	1	2	Elective	4	NAE
102	MDE 269	Physical Education 1 (Fitness)	0	1+0	1	2	Elective	1	NAE
103	MDE 270	Physical Education 2 (Fitness)	0	1+0	1	2	Elective	2	NAE
104	MDE 271	Physical Education 3 (Fitness)	0	1+0	1	2	Elective	3	NAE
105	MDE 272	Physical Education 4 (Fitness)	0	1+0	1	2	Elective	4	NAE
106	MDE 273	Physical Education 1 (Special group)	0	1+0	1	2	Elective	1	NAE
107	MDE 274	Physical Education 2 (Special group)	0	1+0	1	2	Elective	2	NAE
108	MDE 275	Physical Education 3 (Special group)	0	1+0	1	2	Elective	3	NAE
109	MDE 276	Physical Education 4 (Special group)	0	1+0	1	2	Elective	4	NAE

110	MDE 277	Physical Education 1 (Football)	0	1+0	1	2	Elective	1	NAE
111	MDE 278	Physical Education 2 (Football)	0	1+0	1	2	Elective	2	NAE
112	MDE 279	Physical Education 3 (Football)	0	1+0	1	2	Elective	3	NAE
113	MDE 280	Physical Education 4 (Football)	0	1+0	1	2	Elective	4	NAE

Nō	req	code	title	th	pr	cr	ects	type	term	type
1		CSS 492	Graduation exam	0	6+0	6	12	Elective	8	NTE
2		CSS 493	Diploma defence	0	6+0	6	12	Elective	8	NTE

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Nō	req	code	title	th	pr	cr	ects	type	term	type
1		MDE 001	General English (A1 level)	0	6+0	6	6	Elective	1	RC
2		MDE 002	General English (A2 level)	0	6+0	6	6	Elective	2	RC