

COURSE STRUCTURE

2025-10155 Chemistry (EN) Bachelor

1						2					
No	Course code	Title	Th	Pr	Ects	No	Course code	Title	Th	Pr	Ects
1	MTH 131	Higher mathematics- 1	3	3+0	8	1	MTH 132	Higher mathematics- 2	2	2+0	6
2	COMP 122	Information Technology	2	1+0	4	2	CHM 102	Inorganic Chemistry- 1	2	1+2	7
3	CHM 101	General Chemistry	2	0+2	5	3	TRX 111	History of Azerbaijan	2	2+0	5
4	XXX XXX	[NAE] Foreign language II	0	6+0	5	4	AZD 140	Official and Academic Communication in the Azerbaijani language	0	2+0	4
5	XXX XXX	[NAE] Foreign language I	0	6+0	5	5	XXX XXX	[NAE] Non-Area Elective Course II	1	1+0	3
6	XXX XXX	[NAE] Non-Area Elective Course I	1	1+0	3	6	XXX XXX	[NAE] Foreign language III	0	6+0	5
Subtotal: 30						Subtotal: 30					

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№	Course code	Title	Th	Pr	Ects
1	PHS 207	Physics- 1	2	0+2	6
2	MM 120	Civil Defence	3	0+0	3
3	CHM 203	Analytical chemistry- 1	2	0+3	7
4	CHM 201	Inorganic chemistry- 2	2	1+1	5
5	CHM 105	Crystallography	2	1+0	4
6	XXX XXX	[AE] Area elective course I #1	2	2+0	5

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	PHS 208	Physics- 2	2	0+2	6
2	CHM 206	Organic chemistry- 1	2	0+3	7
3	CHM 204	Analytical chemistry- 2	2	0+3	5
4	CHM 202	Physical chemistry- 1	2	0+3	7
5	XXX XXX	[AE] Area elective course I #2	2	2+0	5

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	CHM 311	Organic chemistry- 2	2	0+3	5
2	CHM 309	Physical chemistry- 2	2	0+2	5
3	CHM 303	Physical investigation methods	2	0+2	6
4	CHM 301	Chemical technology	2	2+0	6
5	XXX XXX	[AE] Area elective course III #3	2	1+0	4
6	XXX XXX	[AE] Area elective course IV #4	2	1+0	4

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	CHM 306	Colloid Chemistry	2	0+2	6
2	CHM 304	Petrochemistry and petrochemical synthesis	2	1+2	6
3	CHM 302	HMC Chemistry	2	1+2	6
4	XXX XXX	[AE] Area elective course V #5	2	1+0	4
5	XXX XXX	[AE] Area elective course VI #6	2	1+0	4
6	XXX XXX	[AE] Area elective course VII #7	2	1+0	4

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	XXX XXX	[AE] Area elective course VIII #8	2	1+1	5
2	XXX XXX	[AE] Area elective course IX #9	2	1+1	5
3	XXX XXX	[AE] Area elective course X #10	2	1+1	5
4	XXX XXX	[AE] Area elective course XI #11	2	1+1	5
5	XXX XXX	[AE] Area elective course XII #12	2	1+1	5
6	XXX XXX	[AE] Area elective course XIII #13	2	1+1	5

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	CHM 498	Graduation work	0	0+0	9
2	CHM 490	Internship	0	0+0	21

Subtotal: 30

Total ECTS credits: **240**

AE - Area Elective Courses

№	Course code	Title	Th	Pr	Ects
1	CHM 207	Mineral chemistry	2	2+0	5
2	CHM 205	Fundamentals of inorganic chemistry materials science	2	2+0	5
3	CHM 208	Ecological chemistry	2	2+0	5
4	CHM 210	Fundamentals of ecology and nature conservation	2	2+0	5
5	CHM 307	Solid state chemistry	2	1+0	4
6	CHM 305	Radiation chemistry	2	1+0	4

7	CHM 315	Chemistry of bio-organic, natural, and physiologically active compounds	2	1+0	4
8	CHM 313	Chemical principles of life processes	2	1+0	4
9	CHM 308	Problem solving in chemistry	2	1+0	4
10	CHM 310	Mathematical modeling in chemistry	2	1+0	4
11	CHM 314	Modern analysis methods	2	1+0	4
12	CHM 312	Application of complex compound in analytical chemistry	2	1+0	4
13	CHM 318	Green chemistry	2	1+0	4
14	CHM 316	Food chemistry	2	1+0	4
15	CHM 403	Nanochemistry	2	1+1	5
16	CHM 401	Dye chemistry	2	1+1	5
17	CHM 405	Organic synthesis	2	1+1	5
18	CHM 407	Organic reaction mechanism	2	1+1	5
19	CHM 411	Heteroatomic compounds of petroleum	2	1+1	5
20	CHM 409	Chemical processing of Crude Oil	2	1+1	5
21	CHM 415	Surface chemistry	2	1+1	5
22	CHM 413	Electrochemistry	2	1+1	5
23	CHM 419	Polymer composite materials	2	1+1	5
24	CHM 417	Synthesis of drug substances	2	1+1	5
25	CHM 421	Catalysis and catalytic processes	2	1+1	5
26	CHM 423	Heterogeneous catalysis	2	1+1	5

<u>NAE - Non-Area Elective Courses</u>					
No	Course code	Title	Th	Pr	Ects
1	PA 137	Politology	1	1+0	3
2	SOC 110	Sociology	1	1+0	3
3	SOC 150	Introduction to Multiculturalism	1	1+0	3
4	ENG 040	English for business and academic communication-3 (for academic purposes)	0	6+0	5
5	ENG 025	English for business and academic communication-2 (listening comprehension)	0	6+0	5
6	ENG 015	English for business and academic communication-1 (reading- writing)	0	6+0	5

