KHAZAR UNIVERSITY

Chemical Engineering B.S. Program

1st Year

CODE	Fall Semester	KU	ECTS
AZLL 101	Azerbaijan Language	3	6
AZC 202	Azerbaijan Culture	2	4
ENGL 101	English Foundations I	4	8
PHSC 111	Physics I	3	6
MATH 101	Calculus I	3	6
CHEM 111	General Chemistry I	3	6
	Credit	18	36

CODE	Spring Semester	KU	ECTS
AZH 150	Azerbaijan History	3	6
ENGL 102	English Foundations II	4	8
PHSC 112	Physics II	3	6
MATH 105	Calculus II	3	6
CHEM 112	General Chemistry II	3	6
	Credit	16	32

2nd Year

CODE	Fall Semester	KU	ECTS
CHEM 212	Analytical Chemistry and Instrumental Analysis	3	6
MATH 235	Linear Algebra and Analytical Geometry	3	6
ENGL216	English for Special Purpose (ESP)	3	6
CHE 215	Introduction to Chemical Engineering	3	6
CHEM226	Organic Chemistry	2	4
	* Humanity	3	6
	Credit	17	34

CODE	Spring Semester	KU	ECTS
ME 351	Material Science	3	6
ENG 211	Applied Differential Equations	3	6
CMS115	Computer Application in Engineering	3	6
CHE 350	Material and Energy Balance	3	6
CHE 240	Physical Chemistry	2	4
	*Humanity	3	6
	Credit	17	34

3rd Year

CODE	Fall Semester	KU	ECTS
ENGR 311	Engineering Thermodynamics	3	6
CHE 313	Heat and Mass Transfer	3	6
MED 315	Life Science	3	6
ENGR210	Fluid Mechanics	3	6
CHE 310	Separation Processes	3	6
	Credit	15	30

CODE	Spring Semester	KU	ECTS
CHE 322	Unit Operation Technology in Chemical Eng.	3	6
CHE 321	Chemical Reaction Engineering	3	6
CHE 323	Mathematical Modeling in Chemical Eng.	3	6
	**Social Sciences	3	6
	***Major Electives	3	6
	Credit	15	30

CODE	Summer Semester	KU	ECTS
CHE 395	Summer Practice	6	12
	Credit	6	12

4th Year

CODE	Fall Semester	KU	ECTS
CHE 411	Chemical Process Design and Simulation	3	6
CHE 412	Chemical Process Design and Optimization	3	6
	***Major Electives	2	4
	** Social Sciences	3	6
CHE 414	§ Research Project	1	2
	Credit	12	24

CODE	Spring Semester	KU	ECTS
CHE 421	Process Dynamics and Control	3	6
CHE 425	Computational Fluid Dynamics	3	6
	***Major Electives	3	6
	***Major Electives	2	4
CHE 424	§§ Research Project	1	2
	Credit	12	24

Total Credit for Graduation	128	256

Code	* Humanity	6			Code	***Major Electives	12 KU	ECTS
FNLG 201	Foreign Language 1	3			CHE490	Renewable Energy	3	6
HIST 110	History of World Civilizations	3				Environmental Engineering	2	4
FNLG 202	Foreign Language 2	3				Biomedical Engineering	2	4
PHIL 110	Introduction to Philosophy	3			CHE 410	Alternative Fuel Technology	3	6
					CHE 414	Bio-process Engineering	3	6
					CHE 362	Nano-Engineering	2	4
					CHE 460	Polymer Science and Composites	3	6
					CHE 480	Refinery and Petrochemical Products	2	4
	** Social Sciences	6				Computational Chemistry	3	6
MGT 310	Management and Organization	3			CHE 344	Chemical Technology	3	6
LAW 220	Family Law	3			CHE 423	Chemical Engineering Economics	3	6
ECON 101	Introduction to Economics	3					KU	ECTS
LAW 102	Law Enforcement Systems	3				University Requirement English	11	22
	Research Project	2				University Requirement Azeri	8	16
	§ Proposal + Literature Review	1				Humanity	6	12
	§§ Conducting Research + Final Report	1				Science and Technology	9	18
	Science and Technology	9				Social Sciences	6	12
MATH 101	Calculus 1	3				Major Courses	88	176
CMS 115	Computer Application in Engineering	3						
MED 315	Life Sciences	3				Total	128	256