KHAZAR UNIVERSITY

Chemical Engineering B.S. Program

1st Year

CODE	Fall Semester	KU	ECTS
AZLL101	Azerbaijan Language	3	6
MATH 101	Calculus_I	3	6
CHEM111	Chemistry I	3	6
ENGL 101	English Foundations_I	4	8
	Life Science	3	6
	Credit	16	32

CODE	Spring Semester	KU	ECTS
AZH 150	Azerbaijan History	3	6
MATH 102	Calculus_II	3	6
PHSC 111	Physics_I	3	6
CHEM112	Chemistry_II	3	6
ENGL 102	English Foundation _II	4	8
	Azerbaijani Culture	2	4
	Credit	18	36

2nd-Year

CODE	Fall Semester	KU	ECTS
CHE 201	Introduction to Chemical Engineering	2	4
ENGL 216	ESP Chemical Eng.	3	6
CHEM 201	Organic chemistry	3	6
CHEM 113	Analytical Chemistry	2	4
PHSC 112	Physics_II	3	6
	Humanity*	3	6
	Credit	16	32

CODE	Spring Semester	KU	ECTS
CHE 252	Material and Energy Balance	3	6
CMS 115	Computer Application in Engineering	3	6
MATH 310	Applied Differential Equations	3	6
ENGR 205	Engineering Mechanics	3	6
	Humanity*	3	6
	General chemical technology	2	4
	Credit	17	34

3rd-Year

CODE	Fall Semester	KU	ECTS
ENGR 210	Fluid Mechanics + Lab	3	6
ENGR 303	Thermodynamics I	3	6
CHE 302	Heat Transfer + Lab	3	6
CHEM 300	Physical and colloid Chemistry	3	6
CHE 310	Chemical Technology of Non-organic Materials (major elective 1)	3	6
	Credit	15	30

CODE	Spring Semester	KU	ECTS
CHE 352	Mass Transfer	3	6
CHE 303	HSE	3	6
CHE 301	AutoCAD for Chemical Engineering	3	6
ENGR 354	Termodinamika II	2	4
	Economics and Management of Production (Social Sciences)**	3	6
	Credit	14	28

CODE	Summer Semester	KU	ECTS
CHE 395	Summer Internship	3	6
	Credit	3	6

4th-Year

CODE	Fall Semester	KU	ECTS
CHE 404	Process Control	3	6
CHE 405	Kinetics and Reaction (Major Elective 2)	3	6
ENV 305	Unit Operation I	3	6
CHE 410	Alternative Fuel Technology	3	6
	Social Sciences**	3	6
	Credit	15	30

CODE	Spring Semester	KU	ECTS
CHE 403	Unit Operation II	3	6
CHEM 460	Modeling and Simulation Processes (major elective 3)	3	6
CHE 455	Catalysis and Catalytic Processes	3	6
CHE 480	Petrochemical products	2	4
	(major elective 4)	3	6
	Credit	14	28

Total Credits for Graduation 128 256

	* Humanity Courses List:					Major Electives List:	KU	ECTS
PHIL 110	Philosophy				CHE 470	Principles of Fine Organic Synthesis	3	6
	Foreign Languages				CHE 305	Material Science	3	6
					CIV 303	Strength of Materials	3	6
					CHEM 440	Refinery and Petrochemical Processes	3	6
	** Social Sciences				CHE 408	Environmental Engineering	3	6
	Economics and Management of Production				CHE 409	Desalination Systems	3	6
LAW 220	Family Law				CHE 410	Computational Chemistry	3	6
ECON 101	Introduction to Economics				CHE 406	Process Dynamics and Control Systems	3	6
					CHE 491	Ecology	3	6
					CHE 490	Renewable Energy	3	6
	Science and Technology						KU	ECTS
MED 315	Life Sciences					University Requirement English	11	22
MATH 101	Calculus_I					University Requirement Azeri	8	16
CMS 115	Computer Application in Engineering					Humanity	6	12
						Social Sciences	6	12
						Science and Technology	9	18
						Major Cources	88	176
						Total	128	256