

GEOLOGICAL AND GEOPHYSICAL ENGINEERING CURRICULUM PROGRAM

First Year, Fall Semester 30 Credits					
Course Code (The subject code)	Course Name	Weekly lesson load	ECTS	Category	Prerequisite
HS-B02	Business and Academic Communication in Azerbaijani Language	3	4	ECS	none
HS-B03.1	Foreign language: General English and Speech practice	8	8	MT	none
VSS-B01	Analytic geometry and linear algebra	4	4	MT	none
VSS-B06	General chemistry	4	7	MT	none
VSS-B12	General geology	4	6	CS	none

First Year, Spring Semester 29 Credits					
Course Code	Course Name	Weekly lesson load	ECTS	Category	Prerequisite
HS-B01	The History of Azerbaijan	4	5	BS	none
HS-B03.2	Foreign Language: Academic vocabulary and reading. Social communication skills	7	7	ECS	none
VSS-B02.1	Calculus I	4	4	MT	none
HFS-B05	Basics of entrepreneurship and introduction to business	3	3	ECS	none
VSS-B04	Fundamentals of physics	4	5	BS	none
VSS-B19	Fundamentals of geodynamics	4	7	BS	none

Second Year, Fall Semester 30 Credits					
Course Code	Course Name	Weekly lesson load	ECTS	Category	Prerequisite
HES-B04	Philosophy	3	3	MT	none
VSS-B02.2	Calculus II	3	4	BS	VSS.B02.1
VSS-B05	Applied physics	4	6	BS	none
VSS-B10	Introduction to engineering design	4	6	BS	none
VSS-B13	Geodesy	3	5	GGE	none
VSS-B20	Mineralogy, petrography, and lithology	3	6	GGE	none

Second Year, Spring Semester 30 Credits					
Course Code	Course Name	Weekly lesson load	ECTS	Category	Prerequisite
VSS-B03	Applied mathematics	4	4	ECS	none
VSS-B09	Fundamentals of geophysics	3	6	MT	none
VSS-B11	Structural geology and geological mapping	5	7	BS	none

VSS-B17	Electrical and gravimagnetic exploration	5	7	GGE	none
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Third Year, Fall Semester 31 Credits					
Course Code	Course Name	Weekly lesson load	ECTS	Category	Prerequisite
VSS-B07	Geochemistry	4	4	GGE	none
VSS-B08	Hydrogeology and engineering geology	4	5	GGE	none
VSS-B14	Fundamentals of the oil and gas geology	4	5	GGE	none
VSS-B18	Well logging methods	4	5	GGE	none
VSS-B21	Economics and management	2	3	GGE	none
VTES-B06	Geoecology	4	8		none

Third Year, Spring Semester 30 Credits					
Course Code	Course Name	Weekly lesson load	ECTS	Category	Prerequisite
VSS-B15	Petroleum field geology	5	5	OGOE	none
VSS-B16	Seismic exploration	5	6	EGOE	none
VSS-B22	Civil defense	4	3	EGOE	none
VTES-B02	Petrophysics	8	10	EGOE	none

Fourth Year, Fall Semester 30 Credits					
Course Code	Course Name	Weekly lesson load	ECTS	Category	Prerequisite
VTES-B01	Processing and interpretation of seismic data	8	10	BS	none
VTES-B04	Processing and interpretation of gravimagnetic data	7	10	GGE	none
VTES-B05	Comprehensive interpretation of well geophysical data	7	10	GGE	none

Fourth Year, Spring Semester					
Course Code	Course Name	Weekly lesson load	ECTS	Category	Prerequisite
VTES-B03	Geophysical control development of oil and gas fields	9	9		none
VTES-B07	Technical English	3	3		none
	Bachelor Thesis with Final Presentation		9	BT	none

HS-Humanitarian Subject, HES-Humanitarian elective subject, VSS- Vocational training subjects of the speciality, VTES- Elective subjects (Vacational training)

Non-Technical Elective

- HS-B01 The History of Azerbaijan
- HFS-B05 Basics of Entrepreneurship and Introduction to Business
- HES-B04 Philosophy
- VTES-B07 Technical English

- VSS-B22 Civil defence
- HS-B02 Business and academic communication in the Azerbaijani language
- HS-B03.1 Foreign language: General english and speech practice
- HS-B03.2 Foreign language: Academic vocabulary and reading. Social communication skills
- VSS-B21 Economics and management
- VTES-B07 Technical english

Technical Electives

- VSS-B01 Analytic geometry and linear algebra
- VSS-B02.1 Calculus I
- VSS-B02.2 Calculus II
- VSS-B03 Applied mathematics
- VSS-B04 Fundamentals of physics
- VSS-B05 Applied physics
- VSS-B06 General chemistry
- VSS-B07 Geochemistry
- VSS-B08 Hydrogeology and engineering geology
- VSS-B09 Fundamentals of geophysics
- VSS-B10 Introduction to engineering design
- VSS-B11 Structural geology and geological mapping
- VSS-B12 General geology
- VSS-B13 Geodesy
- VSS-B14 Fundamentals of the oil and gas geology
- VSS-B15 Petroleum field geology
- VSS-B16 Seismic exploration
- VSS-B17 Electrical and gravimagnetic exploration
- VSS-B18 Well logging methods
- VSS-B19 Fundamentals of geodynamics
- VSS-B20 Mineralogy, petrography and lithology
- VTES-B01 Processing and interpretation of seismic data
- VTES-B02 Petrophysics
- VTES-B03 Geophysical control development of oil and gas fields
- VTES-B04 Processing and interpretation of gravimagnetic data
- VTES-B05 Comprehensive interpretation of well geophysical data
- VTES-B06 Geoecology