

Identification	Subject	Petroleum Production Engineering – PETE402- 6 ECTS	
	Department	Petroleum Engineering	
	Program (Undergraduate, Graduate)	Undergraduate	
	Term	2026 – Fall	
	Instructor	Dr. Elvin Ahmadv	
	Email:	eahmadv@khazar.org	
	Classroom/hours	15 week, 90-minute session per week	
Prerequisites	Introduction to Petroleum Engineering (PETE202)		
Language	English		
Compulsory/Elective	Compulsory		
Textbooks and course materials	• [1] Guo, B. Petroleum production engineering. Second Edition. Elsevier, 2017 • [2] Economides, M. J. (2013). Petroleum production systems. Pearson education • [3] Reservoir engineering: Heriot-Watt University, Department of Petroleum Engineering, Edinburgh, UK 2004, 814 p. • [4] Vishnyakov, V. and etc. Primer on Enhanced Oil Recovery: Elsevier, 2020		
Course description	This course provides an in-depth understanding of the principles and practices involved in the production of petroleum. Topics covered include reservoir engineering, well performance, artificial lift techniques, surface facilities, and production optimization.		
Course objectives	• The course objective is to understand the basic concepts and terminology associated with oil and gas reservoirs, including types of reservoirs, reservoir rock properties, and fluid properties. • Explain petroleum's place in the global energy system and the role of production technology in petroleum engineering.		
Learning Outcomes	• To review types of oil and gas well • Knowledge of Petroleum Engineering Fundamentals • Proficiency in Reservoir Characterization • Competence in Well Stimulation • Understanding of Production Operations and Facilities		
Teaching methods	Case analysis		x
	Group discussion		x
	Lecture		x
	Practical exercises (laboratory work and case studies)		x
Evaluation Criteria	Methods	Date/deadlines	Percentage (%)
	Midterm Exam	TBA	30
	Quizzes		10
	Practical Assignments		10
	Activity		5
	Attendance		5
	Final Exam	TBA	40
Total		100	
Class Policy	Class Participation Assessment: Evaluation of students’ engagement and participation during lectures, practical sessions, and throughout the overall learning process. Quiz: A quiz is a brief assessment designed to evaluate students’ understanding of course material, providing instructors with insights into student progress and identifying any knowledge gaps.		

	Final Examination: The final examination is conducted at the end of the academic term to assess students' knowledge and skills acquired throughout the course. Preparation for Class: This course requires significant independent study. Lectures emphasize key textbook concepts, so students should read assigned chapters in advance and review notes, problems, case studies, and sample exam questions after class. Withdrawal (Pass/Fail): A minimum grade of 60% is required to pass the course. Students who fail must repeat the course in the following term or academic year. Cheating and Plagiarism: Any cheating or plagiarism during quizzes, midterm, or final examinations will result in assessment cancellation and an automatic grade of zero (0), without exception. Professional Behavior Guidelines Students must maintain professional conduct to support a positive academic environment. Unauthorized discussions and unethical or disruptive behavior are strictly prohibited.
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Tentative Schedule			
Week	Date/Day (tentative)	Topics	Textbook/Assignments
1	TBA	Introduction to petroleum production engineering	[1, pp. 3–4]; [2, pp. 1-15]; [4, pp. 45-53]
2	TBA	Well components and well technology	[1, pp. 4-9]
3	TBA	Reservoir and development technology	[1, pp. 9-10]; [4, pp. 53-63]
4	TBA	Well completion technology	[1, pp. 207–263]; [3, pp. 131–200]
5	TBA	Reservoir condition	[4, pp. 37-45]
6	TBA	Well and facility maintenance	[1, pp. 275–359]
7	TBA	Artificial lift methods. Gas lift	[1, pp. 570–601]
		Midterm exam	
8	TBA	Properties of petroleum fluids	[1, pp. 19-34]; [4, pp. 33-36]
9	TBA	Sucker rod pumping	[1, pp. 603-635]
10	TBA	Electrical submersible pumping	[2, pp. 551-572]
11	TBA	Full Production stage in petroleum engineering	[2, pp. 1-13]
12	TBA	Sand management	[2, pp. 495-522]
13	TBA	Separation systems. Transportation systems	[1, pp. 639-647]
14	TBA	Case studies in laboratory and presentations	Presentation materials
15	TBA	Overall revision and preparation for exam	Review of all course materials
		Final exam	