

Course Description Form

1. Course Name:	
Secondary recovery	
2. Course Code:	
PE406	
3. Semester / Year:	
2024-2025	
4. Description Preparation Date:	
18/12/2024	
5. Available Attendance Forms:	
presence	
6. Number of Credit Hours (Total) / Number of Units (Total)	
90	
7. Course administrator's name (mention all, if more than one name)	
Name: Dr. mohammad Hweree Email : mhwere@albaath-univ.edu.sy	
8. Course Objectives	
Course Objectives	- Introduction to recovery processes. - Definition of Reservoir Drive Mechanisms. - Definition of all recovery methods. - Choose the appropriate recovery method for each reservoir. - Knowledge of all recovery methods, especially modern ones. - Knowing the possibility of combining more than one recovery method. - Determine the ideal time to start applying recovery methods. - Thinking about new methods of recovery.
9. Teaching and Learning Strategies	
Strategy	- Giving lectures to students. - Using illustrative means, models, video clips, etc. 

10. Course Structure					
Week	Hou rs	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3	The student learns	Introduction to Secondary recovery	- lecture. - discussion.	-Interim testing -Asking questions - Final test
2	3	The student learns	Drive Mechanisms	- lecture. - discussion.	- Interim testing -Asking questions - Final test
3-6	12	The student learns	Water injection	- lecture. - discussion.	Interim testing -Asking questions - Final test
7-10	9	The student learns	CO ₂ injection	- lecture. - discussion.	- Interim testing -Asking questions - Final test
11-12	6	The student learns	Acidizing	- lecture. - discussion.	Interim testing -Asking questions - Final test
13-15	12	The student learns	Hydraulic Fracturing	- lecture. - discussion.	Interim testing -Asking questions - Final test
16-18		The student learns	Hydraulic Fracturing with Acid	- lecture. - discussion.	- Interim testing -Asking questions - Final test
19-21	9	The student learns	Thermal method	- lecture. - discussion.	- Interim testing -Asking questions - Final test
22-23	6	The student learns	Bacteria method	- lecture. - discussion.	- Interim testing -Asking questions - Final test
24-28	15	The student learns	Modern method	- lecture. - discussion.	- Interim testing -Asking questions - Final test
29-30	6	The student learns	Use many methods	- lecture. - discussion.	- Interim testing -Asking questions - Final test.

11. Course Evaluation

- Weekly tests, jobs, activities:	5 marks (during each semester).
- Quizzes every two weeks.	5 marks (during each semester).
- Main interim exam (first semester, second semester).	10 marks (during each semester).
- Final practical test.	10 degrees .
- A theoretical final test.	50 degrees.

12. Learning and Teaching Resources

Required textbooks (curricular books any)	-microbial enhancement of oil recovery - recent advances proceedings of the 1992 international conference on microbial enhanced oil recovery -Petroleum Engineering Handbook- Larry W. Lake, Editor-in-Chief- U. of Texas at Austin. -Petroleum production Engineering - ISBN: 0750682701- Publisher: Elsevier Science & Technology Books- • Pub. Date: February 2007.
Main references (sources)	
Recommended books and references (scientific journals, reports...)	-OIL AND GAS, PRODUCTION. HANDBOOK, An introduction to oil and gas production- Håvard Devold- © 2006 ABB ATPA Oil and Gas.
Electronic References, Websites	- https://t.me/+e9uigwz12D4wmzzk - www.scientificamerican.com - https://www.researchgate.net/publication/423873