

ENHANCED OIL RECOVERY: PRINCIPLES, **TECHNOLOGIES AND FIELD** APPLICATIONS



COURSE OVERVIEW

This course provides a comprehensive overview of Enhanced Oil Recovery (EOR) methods used to increase oil production beyond the capabilities of primary and secondary recovery. Participants will explore the fundamental principles, operational techniques, chemical and thermal methods, and gas injection technologies. The course covers screening criteria, reservoir evaluation, project economics, and successful field applications. Emphasis is placed on practical implementation, recent innovations, and environmental and operational challenges.

DATES, VENUES AND FEES



Note: Fee is per participant + 5% VAT (if applicable). Groups from the same company can enjoy a **discounted** price.

WHO SHOULD ATTEND?

This course is appropriate for a wide range of professionals but not limited to:

- Petroleum, reservoir, production, and drilling engineers
- EOR project managers and planners
- Field operations personnel and supervisors
- Geoscientists and petrophysicists involved in reservoir evaluation
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- Technical consultants and R&D personnel
- Anyone involved in oil field development and optimization

CONTACT US NOW

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Millennium Solutions Training Center FZ-LLC





ACCREDITATION



This training course is certified by CPD.

The CPD Certification Service is the leading independent CPD accreditation institution operating across industry sectors to complement the Continuing Professional Development policies of professional institutes and academic bodies. The CPD Certification Service provides support, advice, and recognised independent CPD accreditation compatible with global CPD principles. CPD is the term used to describe the learning activities professionals engage in to develop and enhance their abilities and keep skills and knowledge up to date. CPD Units are only awarded to programmes after each programme is scrutinised to ensure integrity and quality according to CPD standards and benchmarks.

COURSE CERTIFICATE

MSTC certificate will be issued to all attendees completing a minimum of 80% of the total tuition hours of the course.

CPD internationally recognized certificate will be issued for all participants who will meet the course requirements. CPD certificates will be issued within a month of the successful completion of the course.

TRAINING METHODOLOGY

- Expert-led sessions with dynamic visual aids
- Comprehensive course manual to support practical application and reinforcement
- Interactive discussions addressing participants' real-world projects and challenges
- Insightful case studies and proven best practices to enhance learning

LEARNING OBJECTIVES

By the end of this course, participants should be able to:

- Understand the principles and classification of EOR methods.
- Evaluate reservoir conditions to select suitable EOR techniques. .
- Analyze chemical, thermal, and gas injection methods and their effectiveness.
- Apply screening criteria for EOR field implementation.
- Review successful case studies and lessons learned from field applications.
- Assess project feasibility, performance, and environmental impacts.

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COURSE OUTLINE

DAY 1

Introduction to Enhanced Oil Recovery (EOR)

- Pre test
- Fundamentals of oil recovery: Primary, secondary, and tertiary methods
- Overview and classification of EOR techniques
- History and evolution of EOR
- Reservoir types and fluid properties relevant to EOR
- Challenges and opportunities in EOR projects

DAY 2

Chemical EOR Techniques

- Polymer flooding: mechanisms, design, and implementation
- Surfactant and alkaline flooding
- Hybrid chemical methods (ASP: Alkaline-Surfactant-Polymer)
- Chemical selection and formulation strategies
- Field examples and case studies

DAY 3

Thermal EOR Methods

- Steam flooding and cyclic steam stimulation (CSS)
- In-situ combustion and fireflooding
- Heat transfer mechanisms in thermal recovery
- Well design and surface facility considerations
- Operational issues and mitigation strategies

DAY 4

Gas Injection and Miscible Processes

- CO₂ injection and sequestration opportunities
- Nitrogen and hydrocarbon gas injection
- Miscible vs. immiscible displacement
- Phase behavior and reservoir screening
- EOR monitoring and surveillance techniques

DAY 5

EOR Field Planning, Economics, and Case Studies

- EOR screening criteria and reservoir evaluation
- Economic analysis and risk assessment of EOR projects
- Regulatory and environmental considerations
- Pilot testing, scale-up, and full-field deployment
- Global EOR field experiences and future trends
- Post test

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