



Course Description:	Enhanced Oil Recovery
Course Location	Hydrafact Limited, Edinburgh
Course Description	<p>The aim of this course is to introduce Enhanced Oil Recovery (EOR) methods, for both light and heavy oils. The course will cover various topics, including:</p> <ul style="list-style-type: none"> • Immiscible displacement • Assessment of sweep efficiency • Improvement of water flooding • Miscible flooding • WAG injection • EOR of heavy oils – thermal and non-thermal methods <p>This training programme is mainly based on theoretical concepts, practical examples, and some case studies.</p>
Audience	Petroleum, production, process and drilling engineers.
Prerequisites	Previous knowledge of hydrates is desirable. Operational experience in drilling, production or process engineering would be useful.
Course Length	5 days
Course Materials	Copies of the slides The participants will be given a certificate indicating course
Course Contacts	Please email us at info@hydrafact.com
Course Contents and Daily Programme	Please let us know if you wish to add anything to the course contents.



Course Content / Daily Programme

Day 1

- Recovery mechanisms of reservoirs
- Classification of reservoir life-time
- Definition of Improved Oil Recovery (IOR) and Enhanced Oil Recovery (EOR)
- Need for EOR and its worldwide status
- Introduction of different EOR processes
- Displacement efficiency

Day 2

- Immiscible displacement, definition and introduction
- Mathematical modelling of one dimensional waterflooding
- Dissipative effects in one dimensional flow
- Dispersivity
- *Workshop:* mathematical modelling of waterflooding and sweep efficiency

Day 3:

- Heterogeneity and its effect on displacement process, definition and mathematical modelling
- Polymer flooding, definition and mathematical modelling
- Surfactant modelling, definition and mathematical modelling
- *Workshop:* mathematical modelling of polymer and surfactant modelling

Day 4:

- Miscibility concepts
- Miscible flooding
- CO₂ flooding
- Water-Alternating-Gas (WAG) injection

Day 5:

- EOR of heavy oils, thermal methods
- EOR of heavy oils, non-thermal methods