First day 11:30 – 17:00

1st session 11:30 – 13:00 Geology

What is an oilfield? How do we discover oilfields? How does reservoirs develop, how does a typical North Sea reservoir look like? Basic rock mechanics - what is pore pressure, overburden pressure, fracture gradients and various lithology in a typical north sea well. Some simple calculations – how does reservoir pressure translate to wellhead pressure, mud weight to balance formation pressure.

Break 15 min

2nd session 13:15 – 14:45 Well design

Well sections – **why** do we drill wells as we do? Basic casing design and well control, wellheads, BOP`s, barrier philosophy, cementing, liner and liner hangers. HSE in well design and execution.

Basic drilling equipment - **how** do we drill these wells - circulation system, hoisting equipment on drill floor, top drives, iron roughnecks, shakers, mud pumps, heave compensation. How does it all

Drilling units, floaters, drillships, jack-ups, platforms, dry trees, subsea wells – which challenges does each unit have? Organization of crews, who does what? An oversight of the most common service companies and what they deliver..

Break 15 min

3rd session 15:00 – 16:30 Drilling technology

How does a drill string look like? We go through various downhole tools, logging and directional drilling – how can we drill and steer the bit where we want to? What information do we need from the well and how do we get it? Drilling fluids design, completion phase including perforation and getting the well on production.

16:30 – 17:00 Wrap up/questions – agenda for next day

Second day

08:30 – 12:00

1st session 08:30 – 09:45 Drilling technology cont.

Questions from yesterday, repetition of subjects if required. Move on to various downhole problems and failures, where does drilling down-time normally come from? Basic well control, kicks, mud losses, stuck pipe and other drilling issues. Drilling logistics, tubulars, bulk fluids and chemicals - classic drilling bottlenecks.

2nd session 10 – 11:30

Production of wells and well interventions – why do we intervene in wells? Wireline and coiled tubing equipment, technology, benefits and constraints. Snubbing and sub sea interventions. The well of the future – what does it look like? Where are the major R&D workfronts?

11:45 – 12: Wrap up – comments and evaluation