

Short Course

Oil and Gas Fundamentals

Onshore Petroleum Centre of Excellence (OPCE)

tafesa



Government of
South Australia



Learn the fundamentals of oil and gas upstream operation.

This orientation course provides participants with a good understanding of the oil and gas industry processes and equipment in easy to understand language.

It is specially designed for non-technical people such as professionals and engineers who need to know more about the oil and gas business or persons interested in gaining employment within the industry or related fields.

Participants will experience field based equipment and operations in the OPCE simulated training environment.

The five day course consists of seven topics that cover key areas within the industry. Register your interest today!

Contact information

TAFE SA Tonsley

1284 South Road (enter via Alawoona Ave)
CLOVELLY PARK SA 5042

Graham Creed

Principal Lecturer, Fabrication and
Mining

T (08) 8207 9791

M 0401 124 688

E graham.creed@tafesa.edu.au

W opce-tafesa.com

tafesa.edu.au



YouTube

CRICOS code: 00092B | RTO code: 41026

Information current as at November 2016

Oil and Gas Fundamentals

Day 1

Introduction:

This will provide an overview of the course and induction to the TAFE SA Tonsley site and OPCE facility.

Participants will tour the facility to identify emergency exits and assembly areas.

Topic 1: Overview of conventional oil and gas exploration and drilling.

Gain an overview of:

- > oil and gas exploration
- > rock formations
- > drilling and extraction
- > natural gas and oil components
- > resource development
- > upstream and downstream defined

Topic 2: Introduction to working in the oil and gas industry.

This topic provides participants with a good understanding of what is involved in working in the oil and gas industry:

- > fly in fly out
- > extreme conditions
- > industry expectations

Day 2

Topic 3: Introduction to upstream plant and process

Participants will learn about the plant and equipment used in upstream operations including:

- > follow the flow schematic through the OPCE plant
- > identify the individual components of plant and their applications
- > observe the plant in operation, circulating the oil simulation (water) and gas simulation (air). Participants can be physically involved if they desire.

Topic 4: Safety and Environmental Systems

Gain an understanding of the safety systems used in the Oil and Gas industry:

- > Permit to Work systems
- > SOPs, JSA, JHA, Step Back
- > Tool box meetings
- > Gas detection equipment types, their use and limitations
- > Emergency response
- > Environmental protection
- > Driving in the field

Day 3

Topic 5: Pigging

Participants will be given an overview of the pigging process, types of pigs and the opportunity to participate in running a pig through the line:

- > why pigging is conducted
- > types of pigs
- > pigging issues in the field

Topic 6: Plant and Equipment schematic diagrams

This topic provides participants with an awareness of schematic diagrams and how they are used in the field including:

- > symbols
- > P&IDs
- > Management and control of isolations

Day 4 & 5

Topic 7: Plant and equipment in detail

This topic is broken into sessions which provide participants with a more detailed explanation of how each item of plant functions in the upstream processes. It also covers how they are isolated from service for maintenance or repair.

Some items will be disassembled and reassembled allowing the examination of the operating components.

Categories include:

- > separators
- > pumps
- > prime movers
- > pipe spools
- > dials and indicators
- > valves