This five-day Course has been designed to be suitable for contractors, engineers, operators and those new to the offshore industry, those transferring from other disciplines within the industry and those who have worked in subsea previously but would benefit from a refresher course and exposure to the latest technology.

Whilst most of the course will be presented in a ‘classroom’ environment, the sessions will be interactive, with the opportunity to ask questions and discuss what has been learnt. In particular, hands-on and visual components have been included wherever possible to enable delegates to view software models and products destined for subsea service.

The course also hosts two site visits, taking delegates out of the classroom and into the real life subsea industry including a chance to test your skills as an ROV Pilot on the ROV Simulator.
PROGRAMME— Subsea Awareness Course

Day 1 08:45 – 16:45
08:45 Registration
09:00 General Introduction to the Subsea Sector
Neil McKay Woodside Energy Ltd.
Overview:
♦ Why subsea?
♦ What other options are available, including option evaluation and selection?
♦ Examples of different systems used on existing fields.
♦ What are the current design philosophies and the technology drivers?

Subsea development options
♦ Single well tieback
♦ Template
♦ Cluster/manifold etc

10:15 Tea/Coffee
10:30 Components of subsea systems ‘building blocks’
Kevin Mullen, Intecsea
♦ What is the purpose of each and how do they fit into the overall system?

Development areas:
♦ Deep water/ultra deep water
♦ Complete subsea solutions

12:15 Lunch
13:15 Flow Assurance
Julie Morgan, Woodside Energy Ltd.
♦ Understanding the nature of fluids
♦ Thermal management of subsea systems

15:00 Tea/coffee
15:15 Flow Assurance (cont.)
♦ Deep and Ultra deepwater development.
♦ Seabed Processing

16:45 Day end
17:30 Course Dinner

Day 2 09:00 – 17:00
09:00 Subsea Wellheads/Trees
Introduction 3D Interactive Subsea Systems Overview
Mike Robinson, FMC Technologies
Getting to know the Technology and Terminology
♦ Drilling Vessels
♦ The basics of Drilling a Well
♦ An overview of Key components and their methods of operation
♦ SubseaTree Applications
♦ Completion risers
10:30 Tea/coffee
10:45 Wellhead Systems
♦ UWD-15 Wellhead System Overview
♦ UWD-15 Wellhead Installation Animation

Tree systems
♦ EHXT, EVDT and EVXT Tree System Overview
♦ EHXT, EVDT & VXT Installation & Tooling Overview
♦ EHXT Installation Animation
♦ EVDT/EVXT Installation Animation

12:00 Lunch
13:00 Manifolds and Pipeline Sys.
♦ HOST Template/Off Template/Cluster

Tie-In & Connection System
♦ KC/KL/Connectors
♦ ROVCON
♦ SPOOLCON
♦ STABON
♦ UCON-H
♦ Animations
14:00 Tea/coffee
14:15 Depart Hilton for FMC’s base at Henderson
17:00 Back at Hilton - Day end

Day 3 09:00 – 16:30
09:00 Subsea Control Systems
Greg Ross, Aker Solutions
Introduction
♦ Overview, what does the control system do

Types of Control System
♦ Advantages/disadvantages of each type

10:30 Tea/coffee
10:45 Typical Equipment
♦ Hydraulic Power Unit
♦ Electrical Power Unit
♦ Master Control Station
♦ Subsea Control Modules

Subsea Options
♦ Hydraulics
♦ Electrics
♦ Umbilicals
♦ Sensors

Operator Interface
♦ Master Control Station, functionality and options

Future
♦ Technology Drivers

12:15 Lunch
13:15 Subsea Control Fluids
Sam Johns, Castrol Offshore
♦ The control fluid as a component of the system
♦ Anatomy of a control fluid
♦ Environmental impact
14:45 Tea/coffee
15:00 Umbilicals
Mahna Mehdizadeh, Aker Solutions
♦ Design
♦ Manufacture
♦ Project Uses

16:30 Day end

SUT reserves the right to change/amend the programme as it sees fit.
PROGRAMME— Subsea Awareness Course

Day 4 09:00 – 16:30

09:00 Installation
   Andy Buck, Technip Oceania

Field Architecture Overview
   • Subsea Tieback
   • Subsea Floater

Installation Vessels
   • Vessel Types
   • Positioning
   • Critical Success Factors

Structures
   • Structure Types & Installation
   • Foundations, Types & Installation
   • Critical Success Factor

10:30 Tea/coffee

10:45 Pipelines - Flexibles
   • Flexible Types
   • Critical Success
   • Factors
   • Installation methods

10:45 Pipelines - Rigid
   • Flexible Types
   • Critical Success Factors
   • Installation methods

11:00 Tie Ins
   • Rigid Spools
   • Flexible Jumpers
   • Flying leads
   • Critical Success Factors

12:15 Remote Intervention Introduction
   Norman Mackay, DOF Subsea
   • Safety
   • Current Environment
   • Technology Drivers
   • Water Depth

12:15 Remote Intervention Introduction
   Norman Mackay, DOF Subsea
   • Safety
   • Current Environment
   • Technology Drivers
   • Water Depth

14:30 Tea/coffee

14:45 AUV Technology
   • Introduction
   • System Components
   • Capabilities
   • Sensors
   • Trials and Testing

14:45 Remote Intervention Systems
   • Tooling Standards
   • Interfacing
   • Component Replacement systems
   • Connection systems
   • Diverless Pipeline Repair

16:00 Day end

Day 5 09:00 – 16:00

09:00 Risks, Reliability & Availability
   Ewan Rowell, Chevron
   • Basic background
   • Predictions and Modelling
   • Design Techniques
   • Practical Reliability

10:15 Tea/Coffee

10:30 Angel Case Study
   Harry Mackay, Woodside Energy Ltd.
12:00 Lunch
12:45 Depart Hilton for workshop tour at Oceaneering
16:00 Back at Hilton - Course Certification and Course Conclusion

SUT reserves the right to change/amend the programme as it see fit.
Registration Information

Should you require further information on this event, please contact Jennifer Maninin on j.maninin@sut.org. Tel +61 8 9446 9903

To register, either e-mail the information required on the registration form to perthevents@sut.org or fax the completed form to +61 8 9446 9905

Registration Fees
SUT Members - $2,625.00 + GST = $2,887.50
Non Members - $3,150.00 + GST = $3,465.00

Fee includes - All refreshments during the course including dinner on the first night, handout notes of the presentations & DVD containing PDF versions of the presentations available, videos and transport to site visits.

Preferred Payment Methods:
Credit Card: Visa, Mastercard, or AMEX only. We cannot accept payment by any other card.
*Please note if paying by AMEX there will be a 2.75% surcharge.
Cheque: Australian Dollar only, made payable to The Society for Underwater Technology
Send to, SUT, 5/5 Hasler Road, Osborne Park, Perth, WA 6017
Please make sure you reserve a place by e-mail or fax before sending payment.
Invoice: Please tick here to be invoiced

Joining Instructions:
Joining instructions will be e-mailed to the registered delegate (as shown on the registration form). All details of presenters and updates to the programme will be included in the joining instructions.

Course Dinner:
An informal dinner will be held in a local restaurant on the first night of the course (details with joining instructions).

Transport During the Course:
Delegates are responsible for their own travel arrangements at the beginning and end of each day. Transport will be arranged by the SUT from the Parmelia Hilton Hotel for site visits.

Cancellations:
Refunds will be made on written cancellation received up to ten working days in advance of the event, but will be subject to a 15% handling charge. 50% will be deducted up to three working days in advance and 100% thereafter up to the start of the event. No refund will be given for non-attendance. Delegates may wish to nominate a substitute in their place.

Please tick box if you do not wish to receive further SUT information

Registration Form

Please e-mail details to Perthevents@sut.org or fax the completed form to +61 8 9446 9905

Please tick to indicate your preferred payment method: SUT Member No.__________
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