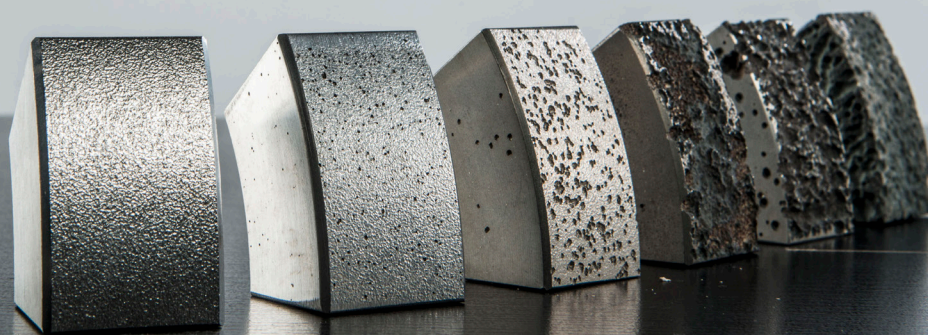


# Materials & Corrosion

**An Awareness Course**

**29 - 30 June 2021**



*Image courtesy of ChampionX*

## Are you new to subsea or unfamiliar with corrosion considerations?

This two-day course has been specifically designed for people new to subsea or unfamiliar with the various corrosion considerations which need to be applied during design, construction and operation of subsea assets. The course will cover the following topics:

- ▶ Overview of corrosion issues
- ▶ Corrosion & Erosion Modelling
- ▶ Chemical Selection, Injection & Inhibition
- ▶ Specification, Fabrication & Welding
- ▶ Cathodic Protection & Coatings
- ▶ Operational Integrity & FFS
- ▶ Planning and Implementation of Inspection & Monitoring
- ▶ Service Facility Site Visit
- ▶ Curtin Corrosion Centre Site Visit

## WHY WILL THIS COURSE BENEFIT YOU?

The aim of this course is to provide an overview of the various materials and corrosion issues which are applicable to subsea structures. The choices made which impact one area of corrosion and integrity will often impact the choices in other areas, and also affect the long term inspection and monitoring which may be required to ensure the design life is met.

Having a general overview of the interaction between the various factors and the impact that certain choices make and the equipment used in inspecting and monitoring the structures will provide attendees with a broad knowledge on the interaction which needs to be considered in any installation.

## PRESENTERS

The course will be presented by experienced personnel from both the supply and subsea industries. Most of the course will be held in a classroom environment, with the session being interactive, with every opportunity to ask questions and discuss the material presented as well as a couple of site visits to relevant facilities.



*Image courtesy of ChampionX*

Thank you to the presenting companies:

# COURSE SCHEDULE

## TUESDAY 29TH JUNE

- 08.30 **Registration**
- 09.00 **Introduction & Overview**  
Grahame Strong, CCE  
Overview & setting the scene.  
Operating conditions for equipment.  
Basic mechanisms of corrosion.  
Effects of elevated temperature, CO<sub>2</sub>, H<sub>2</sub>S, sand, seabed topography & choice of material.
- 09.45 **Corrosion & Erosion Modelling**  
Chris Selman, Wood  
Models available to model effects of CO<sub>2</sub>, H<sub>2</sub>S & sand production on internals of pipelines.  
Advantages, disadvantages & limitations of models.
- 11.15 **Morning Tea**
- 11.30 **Chemical Selection, Injection & Inhibition**  
Nathan Jensen, ChampionX  
Types of inhibitors for oil & gas subsea production systems.  
Selection & qualification of inhibitors.  
Top of line corrosion management  
Downstream process impacts.
- 13.00 **Lunch Break**
- 13.45 **Specification, Fabrication & Welding**  
Niekie Jooste, The WeldNet  
Materials used in subsea & welding related issues  
Types of welds / Heat treatment / Metallurgy of welds  
Differences between fabrication for subsea & topsides  
Limitations imposed on welding offshore pipelines  
Testing welds
- 15.15 **Afternoon Break**
- 15.30 **Cathodic Protection & Coatings**  
John Grapiglia, CCE  
Codes & standards in design of CP systems  
Factors affecting performance of CP systems  
Issues related to CP & the interaction with coating systems
- 17.00 End Day 1
- 17.30 Course Dinner

## WEDNESDAY 30TH JUNE

- 08.30 **Operational Integrity & FFS**  
Colin Radici, Rosen  
Pipeline pigging  
Codes & standards for defect assessment/repair  
Types of pigs, their benefits  
Data collection & how it's processed  
Limitations affecting intelligent pigging & pipeline design
- 10.00 **Morning Tea**
- 10.15 **Planning & Implementation of Inspection & Monitoring**  
Zach Mccann, Sonomatic  
Issues affecting subsea structures  
Types of inspection  
ROV types, inspections & tooling  
ROV capabilities & regulatory requirements for inspection  
What data is required to perform thorough inspections?  
Other forms of inspection (divers etc)
- 11.45 **Lunch**
- 12.30 **Depart for site visit**  
Baker Hughes  
Delegates will be taken on a guided tour of the Baker Hughes subsea service facility. They will have the opportunity to view various items of subsea production equipment and gain insight into material selection and corrosion control applied to equipment operating in a subsea environment.  
  
Curtin Corrosion Centre  
Delegates will visit the Curtin Corrosion Centre to develop an understanding of what exactly can be tested in this well-equipped facility.
- 17.00 **Course Conclusion (time is approximate)**

\*\* SUT reserve the right to amend the course programme as required.



# REGISTRATION FORM

Please submit your registration to:

Renae Drew

Tel: + 61 (0) 8 9481 0999

Email: [perthevents@sut.org](mailto:perthevents@sut.org)

SUT Membership Number

Full name

Job title

Organisation/company

Address

City

County

Postcode

Telephone

Email

Signature

Course fees: (please tick)

Early Bird* Member	\$1090 AUD	<input type="checkbox"/>
Early Bird* Non-member	\$1300 AUD	<input type="checkbox"/>
Member	\$1360 AUD	<input type="checkbox"/>
Non-Member	\$1620 AUD	<input type="checkbox"/>
Student Member	\$ 440 AUD	<input type="checkbox"/>

\*Early Bird rates apply to all bookings paid by 1 June 2021.

All bookings received from 2 June 2021 will be charged at the standard rate. Rates include GST at standard rate.

Terms & Conditions 2021: Refunds will be made on written cancellation received up to 10 working days prior to the event, but will be subject to a 15% administration charge. Cancellations received 9–4 working days prior to the event will be charged a 50% cancellation fee. Cancellations received 3–0 working days prior to the event will not be refunded. Delegates may send a substitute in their place at no charge. Should there be any COVID related shutdowns that impact this course it will be run online instead of in person. Please note, direct competitors of site inspection hosts will be unable to participate in this component of the course.

## PAYMENT INFORMATION:

Please invoice (PO NO.) ☐

or

Credit Card ☐

Credit card Mastercard, Visa or AMEX\* ONLY.

\*Payment by AMEX will carry a 2.75% surcharge, Visa a 1.5% surcharge.

☐ Amex ☐ Mastercard ☐ Visa

Card number

Card holder's name

Signature

Expiry date

Start date

Issue number

Security Code (last 3 digits on the back of your card)

Email address to send receipt

☐ Please tick here if you do not want to receive our weekly newsletter.



Images courtesy of ChampionX

