

Centre for **EXPLORATION  
TARGETING**



CET  
Online  
Short  
Course  
Series

# Critical Evaluation of 3D Geological Models

24<sup>th</sup> to 26<sup>th</sup> May 2021

From 15:00 to 18:00 (Perth time - UTC+8)

[www.cet.edu.au](http://www.cet.edu.au)



THE UNIVERSITY OF  
**WESTERN  
AUSTRALIA**

## Audience

The course is aimed at geoscientists from both industry and academia who desire to gain a better insight on the latest advances in 3D geological modelling, with a focus on regional-scale and on-shore modelling

## Language

English

## Course Content

This three-day course will cover the principles of 3D geological modelling from a software-agnostic perspective. We will cover a range of 3D modelling use cases; discuss the choice of input data; the various methodologies for predicting 3D geology; how to characterise and reduce uncertainty; how to incorporate geophysical constraints and how to use 3D models as part of a minerals prospectivity workflow

The organisers are Prof Mark Jessell and Dr Mark Lindsay (University of Western Australia), who will draw upon case studies of 3D modelling projects in Australia and globally. Invited scholars and experts in the discipline will also be presenting targeted overviews on specific topics, ranging from the newest methods in predicting properties in 3D, to characterising and understanding the impacts of geological uncertainty. The content will be delivered face-to-face and online to facilitate the attendance of professionals and researchers located remotely

## Duration

3 days (9 hours), three-hour daily sessions from 15:00 to 18:00 (Perth time - UTC+8)

## Location

Online Zoom and face to face on campus at the University of Western Australia, Perth, WA

## Cost

CET Members AU\$ 270 + GST - (Euro \*167) - Non-Members AU\$ 380 + GST - (Euro \*235)  
University Postdocs and Fellows AU\$ 150 + GST - (Euro \*93)- Students AU\$ 80 + GST - (Euro \*50)

Payment will be charged in Australian Dollar.

\*Estimated price

## Certificate of Attendance

Upon completion, participants will receive a certificate of attendance

## Registration

For registration and payment information please visit our website: [www.cet.edu.au](http://www.cet.edu.au)

See the CET website for more information  
[www.cet.edu.au](http://www.cet.edu.au)

# Who will be looking after you - Course Leaders



Mark Jessell



Mark Lindsay

## Schedule

TIME	TOPIC	PRESENTER
<b>Monday</b> <b>24/05/2021</b>	<b>Principles of 3D Geological Modelling</b>	<b>Mark Jessell</b>
15:00	Why build 3D models?	Mark Jessell
15:30	3D visualisation methods	Mark Lindsay
16:00	Different 3D model Use Cases- Outcrop Models, Geophysical Inversions, 3D geological models (Petroleum, Minerals, Hydro). Explicit vs Implicit Modelling- strengths and limitations	Mark Jessell
16:30	LAB: Intro modelling Lab From Noddy to Loop?	All presenters
17:45	Summary and discussion	All presenters
<b>Tuesday</b> <b>25/05/2021</b>	<b>Advanced 3D modelling Methods</b>	<b>Mark Lindsay</b>
15:00	3D Interpolation Schemes : Explicit vs Implicit Modelling- strengths and limitations	Lachlan Grose
15:30	Characterising and mitigating uncertainty in 3D	Lachlan Grose
16:30	Characterising and mitigating uncertainty in 3D	Mark Lindsay/Guillaume Piro
17:00	LAB: Uncertainty Workflows	Mark Lindsay/Guillaume Piro
17:45	Summary and discussion	All presenters
<b>Wednesday</b> <b>26/05/2021</b>	<b>3D Integration</b>	<b>Mark Jessell</b>
15:00	Integrating Geological and geophysical constraints	Jeremie Giraud
15:30	LAB: Tomofast-x	Jeremie Giraud
17:00	3D prospectivity analysis	Mark Lindsay
17:45	Summary and discussion	All presenters

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