



# Mineralogy and Geochemistry of Gold Ore

**Audience:** The course is aimed at geoscientists from both industry and academia who wish to gain a better insight in the latest advances in gold mineralogy and geochemistry and their application for exploration.

**Language:** English

**Course Content:** This two-day course will provide a comprehensive overview of exploration strategies for gold mineral systems and cover the latest advances in gold ore mineralogy and geochemistry.

Invited scholars and experts will discuss new data processing approaches; metallurgy; chemistry of ore-bearing fluids and high-end analytical methods that can be used for exploration targeting.

The content will be delivered online to facilitate the attendance of professionals and researchers located remotely.

**Duration:** 2 days (7 hours), three and half-hour daily sessions from 15:00 to 18:30 (Perth time - GMT+8)

**Location:** Online Team

**Cost:** CET Members AU\$ 180 + GST - Non-Members AU\$ 260 + GST - University Postdocs and Fellows AU\$ 100 + GST - Students AU\$ 55 + GST - Payment will be charged in Australian Dollar.

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

**Certificate of Attendance:** Upon completion, participants will receive a certificate of attendance

**4<sup>th</sup> & 5<sup>th</sup> April 2022**



THE UNIVERSITY OF  
**WESTERN**  
**AUSTRALIA**

# Who will be looking after you - Course Leaders



Laura  
Petrella



Steffen  
Hagemann

## Schedule

TIME	TOPIC	PRESENTER
<b>Monday</b> <b>04/04/2022</b>	<b>Overview, assay methods and gold mineral systems</b>	
15:00-15:10	Welcome and Introduction	Laura Petrella
15:10-15:40	The economics of gold	Pietro Guj
15:40-16:10	Gold mineral systems	Steffen Hagemann
16:10-16:30	Analysis for Gold: Commercial Techniques for Exploration and Mining	Brad Whisson
16:30-16:40	Break	
16:40-17:00	Rethinking geochemical data interpretation: a dynamic workflow optimised for mineral exploration and mining	Francois Voute
17:00-17:20	Gold in magmatic systems	Marco Fiorentini
17:20-18:00	The location and characteristics of gold in porphyry- and epithermal-deposits, examples from the magmatic arcs of Ecuador and Indonesia	Steve Garwin
18:00-18:20	Economic importance, exploration opportunities, deposit subtypes, province to deposit scale settings and zonation, with discussion on mineral system aspects	Nick Hayward
18:20-18:30	Discussion	
<b>Tuesday</b> <b>05/04/2022</b>	<b>Latest advances on gold systems geochemistry</b>	
15:00-15:20	Metamorphic controls on the source and chemistry of gold-bearing orogenic fluids	Andy Tomkins
15:20-15:40	Au enrichment in high-temperature hydrothermal fluids	Brian Tattitch
15:40-16:00	Monitoring gold precipitation mechanisms using S isotopes and implications for near-mine targeting	Crystal LaFlamme
16:00-16:15	Break	
16:15-16:40	<i>Micro-texture and trace metal geochemistry of pyrite in gold deposits</i>	Artur Deditius
16:40-17:05	Interface sampling and indicator minerals for gold exploration through cover	Walid Salama
17:05-17:30	Gold metallurgy, processing of invisible gold	Nick Vines/ Gary Johnson
17:30-17:55	Distribution of gold and trace elements in sulphides as a witness of primary mineralisation and secondary remobilisation processes	Denis Fougereuse
17:55-18:05	Discussion	

