



The University of Arizona
1041040 East Fourth Street
Tucson, AZ 85721-0077 USA

University of Arizona Lowell Program in Economic Geology

Field Course on Ore Deposits Mapping September 1-10, 2022

Anaconda mapping (Yerington district and elsewhere) and field trip to diverse ore-forming systems in the Great Basin

Dear Colleagues:

We are opening registration for the 16th offering of our *Field Course on Ore Deposits Mapping*, which will take place **Thursday, September 1 through Saturday, September 10, 2022**.

Course Details:

As part of the University of Arizona's advanced ore deposits curriculum, [Mark Barton](#) and [Eric Seedorff](#) will again be leading an extended field trip and mapping course through the Great Basin. Themes include the broader context of ore-forming systems and how to look at them in the field at multiple scales. It will be an opportunity to see ore deposits of various types and ages, set in the context of the structural, magmatic and fluid evolution of the region. The trip is designed for graduate students taking an advanced ore deposits class, but we will make available approximately 25 seats for members of industry and other professionals.

The trip will include a focused multi-day introduction to the "Anaconda-style" of detailed mapping as applied to multiple deposit types, but with a focus in the Yerington district, Nevada. The district contains porphyry copper and skarn mineralization, but the mapping method is adaptable to any type of deposit. As part of this, we highlight how mapping can be used to understand zoning, the time-space evolution of mineralizing systems, and the relationships to the fundamental phase equilibria of hydrothermal alteration. In addition to numerous other geologic stops, the trip also anticipates to include overviews and/or tours of the following districts and deposits:

- Tonopah, Nevada [low-sulfidation epithermal Ag-Au],
- Goldfield, Nevada [high-sulfidation epithermal Au],
- Birch Creek, California [F-Be-W-(Zn) greisen/skarn],
- Humboldt, Nevada [IOCG occurrences],
- Eureka district, Nevada [partially superimposed systems, with Carlin-type Au mines at Windfall, Rustler and Archimedes, a porphyry Mo-Cu to replacement Zn-Pb-Ag deposit at Ruby Hill, and the top of a F-W-Zn-Be-(Mo-Sn) system at McCullough Butte]
- Robinson district, Nevada [porphyry Cu-(Mo-Au) and related skarn and distal Au-Ag deposits].

- Modern geothermal systems [Hot Creek, CA and Nightingale, NV].

The trip is 10 days round trip from Las Vegas, covering about 2500 miles in 4WD vehicles. Industry participants should plan to arrive in Las Vegas no later than Wednesday evening August 31st, as the trip leaves early on Thursday morning September 1st. Industry participants should also plan to depart from Las Vegas no earlier than Saturday night September 10, 2022.

The early registration cost of the trip (**before July/29/2022**) for non-university participants is US\$3,500.00 which includes ground transportation, all lunches in the field, double-occupancy accommodations in motels each night during the trip, and course materials. Breakfasts and most dinners are the responsibility of participants. Industry participants also will need to provide their own transportation to and from Las Vegas as well as their accommodations the night preceding and following the trip. Please respond via e-mail to brambila@arizona.edu for registration or questions.

Register soon! This course sells out quickly.

Please find attached to this letter all registration materials so that you can forward this information to your co-workers and friends.

Important note: Despite all the planning and precautions that we are taking to carry out this short course with great success, it is important for you to know that there is a considerable amount of uncertainty with regards to COVID-related travel restrictions. In the unlikely event that the short course is canceled, all participants will be notified in advance and will receive a full refund. We recommend all participants to be vaccinated.

We also take the opportunity to inform you that our *Short Course on Porphyry IOCG and Alkalic Cu and Au Deposits* will take place again **December 6-15, 2022**. This 10-day short course has a focus on exploration geology that includes 3½ days of lectures and 2 days of labs in Tucson, and 3½ days of field trips to representative ore systems in Arizona. Visit our webpage: <http://lpeg.geo.arizona.edu/> to register for this short course and learn more about our program. Also visit [Dr. Mark Barton's](#) and [Dr. Eric Seedorff's](#) webpages, where you can find some additional background, maps, and photos related to our short courses.

Sincerely,

Rocío Brambila

Coordinator

Lowell Program in Economic Geology

Geosciences Department

Ph: (520) 626-4962

Fax: (520) 621-2672

Email: brambila@arizona.edu

Webpage : <http://lpeg.geo.arizona.edu/>

Your \$3,500 registration fee includes:

- ground transportation during field trips
- all lunches in the field
- **double-occupancy** accommodations in motels each night during the trip
- 2 group dinners (on day and 9 of the course)
- Course materials and handbook

You will need to pay:

- most breakfasts (some hotels have free continental breakfast) and most dinners are responsibility of participants
- Participants will need to provide their own transportation to and from Las Vegas as well as their accommodations the night preceding and following the trip.

The Short Course on Ore Deposits Mapping consists of exercises that require that you have with you the following personal equipment:

- Hand lens, pencil magnet (\pm carbide scribe)(we have some extras in case you don't have one)
- Rock hammer, compass (i.e., Brunton), acid bottle*
*we will have additional acid bottles 10% HCl, as well as some Bruntons that can be checked out
- Clipboard, field notebook (we will provide it) , pencils
- Colored pencils (we will provide them)
- Field pack, ≥ 2 liters water bottles
- Good field shoes
- Steel toed boots
- Appropriate field clothing:
 - ✓ sun and eye protection, hiking footwear
 - ✓ you must have hard boots and long sleeves/pants for mines (Yerington, Eureka; steel toed boots are required for the Robinson mine tour)
 - ✓ we provide safety glasses, hard hats, vests