## GLY 6932 Instrument Methods

## **COURSE SYLLABUS**

Spring 2021

INSTRUCTORS: George Kamenov Ann Heatherington Jason Curtis

Offices, email addresses, office hours, office phone:

George Kamenov – <a href="kamenov@ufl.edu">kamenov@ufl.edu</a>, 363 Williamson Hall, 846-3955, T 9:30-11:30am and F 9-11am and by appointment

Ann Heatherington – <a href="mailto:aheath@ufl.edu">aheath@ufl.edu</a>, 371 Williamson Hall, 392-6220, Tues and W 10-12 AM and by appointment

Jason Curtis – <a href="mailto:curtisj@ufl.edu">curtisj@ufl.edu</a>, 372 Williamson Hall, 392-2296, M 9-11am and W 9-11am, and by appointment

Class hours – individual work to be determined by instructors and individual students

Classrooms – Department of Geological Sciences research labs Heatherington – 118, 120C and 304 Williamson Hall Kamenov – 302, 324 and 333 Williamson Hall Curtis – 330 and 336 Williamson Hall

Course credit – 1 Course section – 025H

It is advisable that the student already has a scientific project that requires the use of the analytical instruments in the Department of Geological Sciences before enrolling in the class. Consult the instructor(s) if you do not have a specific project but still want to take the class. In such cases a project will be assigned to you by the instructor(s).

A. Description – This course is designed to train students in sample preparation and the use of one or more of the analytical instruments in the Department of Geological Sciences. These instruments include a scanning electron microscope (SEM), an X-Ray fluorescence spectrometer (XRF), an inductively coupled plasma-mass spectrometer (ICP-MS), a multi-collector inductively coupled plasma-mass spectrometer (MC-ICP-MS), a thermal ionization mass spectrometer (TIMS), one of several stable isotope mass spectrometers and one of two laser based stable isotope analyzers. Students will learn to operate the instruments that relate to their individual projects.

- B. Course Objectives –The class will allow students to get one-on-one training how to prepare samples and perform analysis on the state of the art analytical instruments in the Department of Geological Sciences. While learning the instrument the students will be able to analyze the samples for their specific project.
- C. Course Topics Laboratory work on student's specific project samples.
- D. Textbook none
- E. Course materials sample preparation protocols will be provided by the instructors.
- F. Grading plan Final grades will be assigned on the basis of the student's work on the specific project.
- H. For students with disabilities Students requesting classroom (lab room) accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.
  - I. Schedule to be determined between instructors and individual students.

Zoom lectures: the class sessions may be audio-visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voice recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials by students or any other party is prohibited.