GLY 6932 and GLY 4930 Instrument Methods

COURSE SYLLABUS

Spring 2024

INSTRUCTORS: George Kamenov Jason Curtis

Offices, email addresses, office hours, office phone:

George Kamenov – <u>kamenov@ufl.edu</u>, 363 Williamson Hall, 846-3955, T 9:30-11:30am and F 9-11am and by appointment Jason Curtis – <u>curtisj@ufl.edu</u>, 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 –the following Department of Geological Sciences research labs: George Kamenov – 302, 324 and 333 Williamson Hall Jason Curtis – 330 and 336 Williamson Hall Course credit – 1 Course section – 17H5 (Graduate) and 1111 (Undergraduate)

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).

Students will work on selected individual projects throughout the semester - time determined by instructors and individual students and locations will be the Geological Sciences research labs.

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), and Laser Ablation ICP-MS, 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 for individual lab work to be determined between instructors and individual students.