



University of Georgia Center for Applied Isotope Studies

Graduate Research Assistantship

University of Georgia Center for Applied Isotope Studies: CAIS is a fee-for-service analytical testing facility that specializes in radiocarbon dating, stable isotope analysis, and elemental analysis. CAIS serves the UGA research community and external clientele including academic institutions, government agencies, and private companies worldwide. As an interdisciplinary research center, our scientists are experts in physical chemistry, geology, marine science, physics, archaeology, ecology, and biology.

Graduate Assistantships at CAIS: The CAIS graduate assistantship is a commitment for the academic year (beginning Fall semester). The research assistantships are anticipated to be available for up to four years, pending funding and quality of performance. The recipients will be given the opportunity to personalize their experience through collaboration and communication with their direct supervisor, including professional development and/or collaborative research opportunities.

The positions accommodate 13–20 hours of work each week, with optional summer assistantships. The assistantship will provide a monthly stipend consistent with the established rate for the appointment period, as well as a reduction of tuition to \$25 per semester. An offer letter will be signed and renewed at the start of each academic year. GRAs are eligible for the Mandatory Student Health Insurance Plan with UGA contribution. GRAs also are eligible for a departmental conference travel award of up to \$500 per academic year.

To apply for a Graduate Assistantship at CAIS: The GRA must meet the requirements for acceptance into the Graduate School at the University of Georgia and must be duly enrolled as a full-time Masters or PhD student (12 credit hours) upon employment. Attention to detail, good communication skills, and a good understanding of general chemistry principles are required. A degree in a science-related discipline and direct laboratory experience in benchtop chemistry skills or analytical instrumentation is preferred.

Students should submit a current CV, unofficial transcript, and a letter of intent as a single PDF to CAIS Director Dr. Carla Hadden (hadden@uga.edu). The letter of intent should detail their reasons for pursuing an assistantship at CAIS and address how their experience and education contribute to the unit's research and service missions. The letter should also include a statement of the student's preference(s) for lab placement (see list of vacancies below).

Deadline: Application packages for assistantships are due **February 1st** for Fall admission.

CAIS has vacancies in four of our service labs:

1. Plasma Chemistry Lab (PI Dr. Sarah Jantzi)

The GRA will be responsible for a variety of techniques for preparing samples for elemental analyses of environmental, biological, geological, and archaeological materials using inductively coupled plasma (ICP) technology. The GRA will routinely use wet chemistry skills including solution preparation, pipetting, and acid digestion, and equipment such as microbalances in the performance of their duties. GRAs will be cross-

trained on the operation of ICP-OES and ICP-MS instruments. Depending on the needs of the lab and interests of the student, GRAs may be cross-trained on the operation of the direct mercury analyzer.

2. Radiocarbon Dating Lab (PI Dr. Alexander Cherkinsky)

The GRA will be responsible for a variety of techniques for preparing samples such as bone, shell, charcoal, wood, and sediments for radiocarbon dating, for research applications in archaeology, art history, ecology, forensics, geography, geology, and marine sciences, among others. The GRA will routinely use wet chemistry skills including solution preparation and acid-base chemistry and equipment such as microbalances in the performance of their duties.

3. Stable Isotope Ecology Lab (PI Mr. Tom Maddox)

The GRA will be responsible for a variety of techniques for preparing samples for both stable isotope analysis and water chemistry. Sample types include plant and animal tissue, sediment, carbonate, and water, for research applications in ecology, geography, geology, archaeology, and marine sciences. The GRA will use benchtop chemistry skills including but not limited to pipetting, dilutions, solution preparation and titrations. Depending on the needs of the lab and interests of the student, GRAs may be cross-trained on the operation of isotope ratio mass spectrometers (dual-inlet, EA, TC/EA, and GasBench).

4. Natural Products Lab (PI Dr. Mike Marshall)

The GRA will be responsible for preparing samples of food, flavoring, and biobased products for authenticity testing for industrial/commercial applications. The Natural Products Lab is accredited under ISO/IEC 17025:2017. The GRA will use high-vacuum processing lines, hand-held torch, and microbalances in performance of their duties. Depending on the needs of the lab and interests of the student, GRAs may be cross-trained on the operation of isotope ratio mass spectrometers (dual-inlet, EA, and TC/EA).