Center for Applied Isotope Studies
UNIVERSITY OF GEORGIA

120 Riverbend Road
Athens, Georgia 30602
TEL 706-542-1395 | FAX 706-542-6106 cais.uga.edu

University of Georgia Center for Applied Isotope Studies

Graduate Research Assistantships

University of Georgia Center for Applied Isotope Studies: CAIS is a fee-for-service analytical testing facility that specializes in radiocarbon dating, stable and radiogenic 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, food science, geology, marine science, physics, archaeology, ecology, and biology.

Graduate Assistantships at CAIS: GRAs will work in one of four service labs (see position descriptions below). 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 CAIS graduate assistantship is a commitment for the academic year (August–May), with optional summer (June–July) assistantships. Research assistantships are renewable for up to four years, pending funding and quality of performance. An offer letter will be signed and renewed at the start of each academic year.

Assistantships are 50% full-time equivalent (FTE) with a work commitment of 20 hours per week. The assistantship will provide a monthly stipend consistent with the established rates for the VP of Research for the appointment period, currently set at $2,385.42 for MA/MS students and $2,579.17 for PhD students for FY24. *GRAs are eligible for a departmental conference travel award of up to $500 per academic year.* GRAs pay reduced tuition of $25 per semester, and are eligible for the Mandatory Student Health Insurance Plan with UGA contribution.

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 align with 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.

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CAIS GRA Vacancies for 2024-2025 Academic Year

1. **Natural Products Lab (Supervisor: 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 to the ISO/IEC 17025:2017 standard. The GRA will gain experience with 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 and associated peripherals (dual-inlet, GC/MS, EA, and TC/EA).

2. ***Plasma Chemistry Lab*** **(Supervisor: Dr. Alexandra Heri)**
   The GRA will gain experience in a variety of techniques for preparing samples for Sr and Pb isotopic analyses of environmental, biological, geological, and archaeological materials using inductively coupled plasma (ICP) mass spectrometry. GRAs will be trained on the operation of a MC-ICP-MS instrument and will routinely use wet chemistry skills including pipetting, sample digestion using different types of acids, element separation by column chemistry, and equipment such as microbalances in the performance of their duties.

3. ***Radiocarbon Dating Lab*** **(Supervisor: Dr. Alexander Cherkinsky)**
   The GRA will gain experience in 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.

4. ***Stable Isotope Lab*** **(Supervisor: Dr. Katherine Reinberger)**
   The GRA will gain experience in a variety of techniques for preparing samples for light stable isotope analysis (C,N,O). 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, and acidification, and gain experience with microbalances. 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).