

Research Associate Position in Science Education in the Frey Research Group in the Department of Chemistry at the University of Utah.

A research associate position is available in the Frey STEM Education Research group at the University of Utah in the Department of Chemistry. This position is a full-time, 12-month position, with the potential to extend 4 years, assuming excellent annual performance-based reviews. The research associate will work on several projects in the area of inclusive teaching-and-learning materials development and evaluation of student learning in STEM.

A key responsibility will be to join a team of researchers, practitioners, and faculty developers engaged in a multi-institutional NSF-funded grant with the goal of developing online and in-person programming that will improve current and future STEM faculty awareness of, confidence in, and ability to create inclusive learning environments. The team itself practices inclusive group processes and strives to be a social justice organization.

The primary responsibility of the research associate under this NSF grant is to conduct quantitative and qualitative research on the outcomes of participants engaged in the online and the in-person programming. This will entail extensive literature review, development and validation of instruments, and the implementation of instruments and subsequent data analysis. It will also entail developing protocols for and conducting focus groups, followed by thematic qualitative analysis. This work will be performed under the mentorship and supervision of a sub-group of expert education researchers that are part of the grant team.

A second major component of this position is to work as part of the Frey research group to design and implement evaluation studies on student learning in collaboration with STEM faculty and the Center for Science and Math Excellence (CSME) at the University of Utah. In addition, the research associate will be responsible for extracting, managing, and analyzing complex data sets from education research projects conducted in the Frey group, and will help graduate and undergraduate students learn and use the skills required for this type of qualitative and quantitative research in STEM education.

Required Qualifications

The successful applicant will have a PhD in a science field (biology, chemistry, physics, or psychology are preferred) and demonstrated experience in conducting DBER research. In addition, knowledge of and experience in the area of diversity, equity, and inclusion is critical. To be considered, applicants must be strongly committed to undergraduate STEM education and improving inclusion and equity in the STEM classroom. Applicants also must have the skills for and interest in working collaboratively with a wide range of people in higher education.

List of required qualifications:

- PhD in a science field (biology, chemistry, physics, or psychology preferred)
- Experience in chemistry/physics/biology education research or research on student learning
- Excellent organizational skills, including the ability to coordinate and manage multiple simultaneous projects.

- The ability to apply appropriate statistical techniques to a range of experimental, quasi-experimental and correlational research designs. Experience with applying general linear models, factor-analysis techniques, uni-variate and multi-variate techniques, and multi-level models to complex data sets is necessary.
- A record of accomplishment in coordination and quality-control of large data sets and analyses of research data, with demonstrable knowledge of evaluative research methods, and strong command of statistical analysis and statistical software, such as R or SPSS.
- The knowledge of the assumptions underlying the above techniques and the ability to correctly choose and apply the different techniques on social-science data.
- Excellent data-management and organizational skills, including attention to detail and sensitivity to data quality.
- Excellent written and oral communication skills, including the ability to interact with research personnel at various levels (faculty, staff, and undergraduate and graduate students).
- The ability to work both independently and collaboratively with the multi-institutional NSF-grant team, the Frey research group, CSME, and with faculty and staff from other academic departments and centers.

Application Information

Applicants should send a cover letter, curriculum vitae, including the names and email addresses of 3 or more references, and a statement of career goals. Review of applications will begin immediately and will continue until position is filled. The salary is negotiable depending on relevant experience and qualifications. Women and minorities are strongly encouraged to apply. University of Utah is an equal opportunity / affirmative action employer.

Email application material to Regina Frey (Ron and Eileen Ragsdale Endowed Chair in Chemical Education and professor of chemistry, University of Utah) at gina.frey@utah.edu