

Postdoctoral Research Scholar
ICAP Project #139386

The newly established ICAP Center, at Arizona State University's Mary Lou Fulton Teachers College, is funded by the Yidan Foundation and led by Michelene Chi, the 2023 Yidan Laureate. ICAP, an acronym for "Interactive, Constructive, Active, and Passive," is a theory about how students learn. It can be translated into how instructors should teach in active learning classrooms. A postdoctoral scholar is being sought for the ICAP Center to carry out controlled experimental studies in college STEM (Science, Technology, Engineering, Math, and Medicine) classrooms. The goal of these studies is to evaluate how training university STEM instructors in applying the ICAP principles improves the design of their instructional activities for active learning. More importantly, the studies will measure the impact of the instructor's ICAP training on their students' learning outcomes. Thus, these studies will produce quantitative empirical evidence about the feasibility and effectiveness of such training. These studies are embedded in college STEM in-person and online classrooms and involve collaboration with the STEM instructors. This is an on-site position at the Center and may require occasional traveling to other college campuses. Remote or hybrid participation is not feasible.

This is a benefits-eligible fiscal year (12-month) position that could start as soon as **July 1, 2024**. The position includes a competitive stipend with health benefits. The initial appointment is for one year, with renewal for two subsequent years, contingent upon satisfactory performance, the needs of the university, and the availability of resources.

Essential Duties:

The candidate will be involved in carrying out empirical in-person and online classroom studies to assess the efficacy of different components of our fully developed professional development training module. This requires working closely with STEM instructors, providing feedback on their design of instructional or student activities, monitoring their implementation of the activities as designed, and collecting students' learning outcomes. In addition, duties include analyzing the collected qualitative (coding the designed activities) and quantitative data, carrying out the appropriate statistical analyses, writing the results, and submitting the paper(s) to journals. The candidate will also assist the Center's Project Director when she delivers professional development training to college STEM instructors locally and globally. Other duties may be assigned, such as identifying STEM example activities and relevant literature to be shared as resources for STEM instructors on the Center's website.

Required Qualifications:

- Ph.D. degree in cognitive psychology, educational psychology, the learning sciences, or related fields.
- Experience or background in STEM fields through coursework or practical applications within the past four years.
- Candidates must be within five years from receipt of their doctoral degree.

Desired Qualifications:

- Demonstrated experience in designing and implementing controlled studies.
- Demonstrated experience in conducting studies in college classrooms.
- Knowledgeable about research findings on active learning, collaborative learning, learning strategies, and online learning.
- Demonstrated ability to work collaboratively with a team and across disciplines, particularly STEM fields.
- Excellent written and verbal communication skills.
- Ability to travel to international countries that require visa applications and multiple entries into the US.

About the College

ASU's Mary Lou Fulton Teachers College creates knowledge, mobilizes people, and takes action to improve education. Nationally recognized as a leader in teacher preparation, leadership development, and scholarly research, Mary Lou Fulton Teachers College prepares over 7,600 educators annually. MLFTC faculty create knowledge by drawing from a wide range of academic disciplines to gain insight into important questions about the process of learning, the practice of teaching, and the effects of education policy. MLFTC mobilizes people through bachelor's, master's, and doctoral degree programs, through non-degree professional development programs, and through socially embedded, multilateral community engagement. MLFTC takes action by bringing people and ideas together to increase the capabilities of individual educators and the performance of education systems.

For more information about the College, please visit our website at <http://education.asu.edu/>.

Application Deadline and Procedures

The application deadline is **June 2, 2024**. Applications for a reserve pool will continue to be accepted on a rolling basis. Applications in the reserve pool may then be reviewed in the order in which they were received until the position is filled. Only electronic applications will be reviewed.

To apply, submit the following:

- Letter of application/interest
- Curriculum vitae
- Statement of Research Interest
- One professional recommendation letter
- Contact information for two professional references

Apply Now: <http://apply.interfolio.com/146542>

Equal Employment Opportunity Statement

A background check is required for employment. Arizona State University is a VEVRAA Federal Contractor and an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, protected veteran status, or any other basis protected by law.

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(See <https://www.asu.edu/aad/manuals/acd/acd401.html> and <https://www.asu.edu/titleIX/>.)

In compliance with federal law, ASU prepares an annual report on campus security and fire safety programs and resources. ASU's Annual Security and Fire Safety Report is available online at <https://www.asu.edu/police/PDFs/ASU-Clery-Report.pdf> You may request a hard copy of the report by contacting the ASU Police Department at 480-965-3456.