# PITT-CIRTL

CENTER FOR THE INTEGRATION OF RESEARCH, TEACHING AND LEARNING

The University of Pittsburgh is a partner institution in the Center for the Integration of Research, Teaching, and Learning (CIRTL), an NSF Center for Learning and Teaching in higher education. CIRTL is a cross-university network of 41 diverse research universities across the U.S. and Canada committed to advancing the professional development of the next generation of STEM faculty. CIRTL is sponsored by the National Science Foundation (NSF) and the Alfred P. Sloan Foundation. Visit **cirtl.pitt.edu** for additional information and upcoming events.

## Mission

The Pitt-CIRTL mission is to enhance excellence in STEM undergraduate education through the development of future faculty committed to implementing and advancing effective teaching practices for diverse learners as part of successful and varied professional careers. To this end, we maintain three foci:

- **Teaching as Research (TAR)** – Using research methods to develop and implement teaching practices that advance learning experiences and outcomes
- **Learning Communities** – Bringing together interdisciplinary groups for shared learning, discovery, and generation of knowledge of effective STEM teaching and learning
- **Diversity** – Enhancing classrooms by embracing the rich array of experiences, backgrounds, and skills among STEM teachers and learners

## CIRTL network offerings include:

- Professional Development Webinars (CIRTLCast Series)
- TAR Project Discussions (TAR Capstone Series)
- Journal Clubs (CIRTL Reads)
- Network Exchange Program
- Cross-Network Courses and Workshops

## Pitt-CIRTL

We are working with the next generation of STEM faculty to develop knowledge about, and engagement with, evidence-based teaching practices. Our programming includes professional development workshops and seminars, semester-long seminar-based courses, journal/book clubs, and learning community lunch meetings. We welcome graduate students, post-docs, and interested faculty to join us.

## Certification in STEM Teaching

Participants engage in opportunities to fulfill requirements to receive non-degree certificates, which are approved by the Provost's office, in teaching STEM disciplines. Three certification levels that vary in rigor can be obtained.

- **Associate Level** – Participants gain the knowledge and skills to be effective teachers, where they are able to implement research-based "best" practices in different learning environments.
- **Practitioner Level** – Participants use the Teaching-as-Research process to improve their teaching practices. Scholarly teaching builds on what others have learned in an ongoing way, seeks evidence of learning, and uses evidence to improve practice.
- **Scholar Level** – Scholars go beyond scholarly teaching and are driven by a desire to understand how students learn effectively and how teaching influences this process.

## Why should PhDs/Post-docs join Pitt-CIRTL?

- Preparation for future academic faculty position
- Improvement of disciplinary research through engagement in the scholarship of teaching
- Access to STEM education resources, including scholarly articles, research design best practices, and professional development

## Why should faculty become involved?

- Gain assistance in addressing classroom improvements
- Learn about and help develop effective teaching practices specific to your discipline
- Create more student-faculty partnerships

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For more information, contact **CIRTL@pitt.edu** or visit our website at **cirtl.pitt.edu.**

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## Pitt-CIRTL – Certification

| Level | Requirements | | |
|---|---|---|---|
| **Associate** | Take **one** course or multi-day teaching workshop that introduces evidence-based teaching practices and course design | | • e.g. Prep for the STEM Classroom, CIRTL MOOC #1 |
| | Create a teaching philosophy statement | | |
| | Attend **two** online CIRTL Network one-hour webinars | | • e.g. CIRTLCasts (Webinars), CIRTL Reads (Journal clubs) |
| **Practitioner** | Complete a mentored Teaching-as-Research (TAR) project and present findings to the Pitt-CIRTL learning community | | With the guidance of a mentor, design and implement a small STEM education-related project |
| | Take **one** additional one-credit seminar-based course OR participate in professional development seminar series (8 hrs total) | **e.g.** | • Pitt-CIRTL local in-person courses<br>• CIRTL Cross-Network online courses<br>• Career development & teaching development seminars |
| | Submit updated teaching philosophy statement | | |
| **Scholar** | Complete and disseminate TAR project | | • e.g On-campus or off-campus conference poster or conference paper |
| | Create a teaching portfolio | **or** | • Engage in STEM education research in a SoTL manner |
| | Actively mentor others | | • e.g. TAR project mentor |

## Pitt-CIRTL – TAR Process