

The National CIRTL Network

The National CIRTL Network is an NSF funded project based at the University of Wisconsin, Madison. In 2006, CIRTL created the National CIRTL Network made up of the University of Colorado at Boulder, Howard University, Michigan State University, Pennsylvania State University, Texas A&M University, Vanderbilt University, and the University of Wisconsin at Madison. The goal of the CIRTL Network is to improve the preparation of graduate students as future STEM faculty. See the website at <http://www.cirtl.net/>

TIGER is the University of Colorado's liaison to the National CIRTL Network. We work together to promote the development of a well-prepared national faculty in the STEM disciplines (science, technology, engineering, and mathematics), one committed to implementing and advancing effective teaching practices for diverse student audiences as part of their professional careers. The pillars of the National CIRTL Network—Teaching as Research, Learning Communities, and Learning-through-Diversity—underlie all Network activities.

Graduate Teacher Program (GTP)

The GTP provides teacher preparation and professional development opportunities for graduate students in all schools and colleges. We focus on teaching assistants' and graduate part-time instructors' current teaching, research, service responsibilities, and your future career goals. Whether you are planning a career in academia, or in business, government, or industry, you will enjoy and benefit from our activities, events, and certification opportunities. Visit the

GTP website (<http://www.colorado.edu/gtp/>) for more information on professional development and to see schedules of events.

Graduate Student Commentary

“It's very time consuming to do research on teaching! There were great insights on teaching, specifically what kids are about and what really motivates them.”

“The portion of the workshop that discussed not being blinded by unexpected research was great.”

“This workshop got me thinking about what is ahead, it had some good tips.”

Graduate Teacher Program
and
Collaborative PFF Network
201 ATLAS, 362 UCB
University of Colorado at Boulder
Boulder, CO 80309-0362
Telephone: (303)492-4902
Fax: (303)492-4904
gtp@colorado.edu

Graduate School

Graduate Teacher Program

Teaching Institute
for
Graduate Education Research



Colorado
University of Colorado at Boulder

TIGER

The Teaching Institute for Graduate Education Research (TIGER) at the University of Colorado at Boulder was formed in 2006 by the Graduate Teacher Program (GTP) to address the importance of building a solid research base on teaching and learning at the baccalaureate and postgraduate levels. One of TIGER's main goals is preparing the next generation of STEM faculty. Through collaboration with the National CIRTl Network, we are able to leverage resources to enrich our discussions on the scholarship of teaching and learning.

The Graduate Teacher Program offers TIGER workshops to address STEM disciplines specifically. TIGER workshops focus on the CIRTl pillars—Teaching-as-Research, Learning Communities, and Learning-through-Diversity while also featuring outstanding STEM faculty on the CU Boulder campus. Graduate students, post-docs, and faculty are welcome to attend.

Participation in TIGER workshops counts toward the Graduate Teacher Certificate, the Professional Development Certificate for Preparing Future Faculty, and the Professional Development Certificate for Business, Government, and Industry.*

*For more information on GTP certificates go to: <http://www.colorado.edu/gtp/training/certification.htm>

The CIRTl Pillars

Teaching-as-Research (TAR)

Assessing the effectiveness of teaching methods in the undergraduate classroom can be difficult. Teaching-as-research helps instructors design and implement deliberate, systematic, and reflective tools to help assess the effectiveness of their teaching efforts and their students' learning in their classrooms.

Instructors utilize critical thinking and research skills to evaluate student needs. This enhances the learning experience of both the students and instructors. Seven steps make up the Teaching-as-Research process:

- Learning foundational knowledge
- Creating objectives for student learning
- Developing a hypothesis for teaching practices that achieve the learning objectives
- Developing and implementing teaching practices within an experimental design
- Defining measures of success
- Collecting and analyzing data
- Reflecting, evaluating, and reworking for the next version of the design

Learning Communities

Faculty and graduate students can create learning communities in their courses and in their departments. Learning communities provide a forum for the discussion and dissemination of information on a shared topic of interest. Learning communities may focus on specific course materials, or be open to a more general discussion that helps to guide the teaching and learning process. Within a learning community, individ-

uals take responsibility for the shared learning, discovery, and the generation of knowledge that results in achieving learning goals. Four core ideas are central to the learning community:

- Shared discovery and learning
- Functional connections among learners
- Connections to other related learning and life experiences
- An inclusive learning environment

Learning-through-Diversity

Diversity in the classroom includes, but is not limited to: preferred learning styles, race, ethnicity and culture, gender, sexual orientation, disabilities, religion, age, and socioeconomic backgrounds.

It is important to recognize and utilize the diverse experiences and backgrounds of students to enrich the learning process. This requires an intentional and deliberate effort to promote equal success for all learners. The CIRTl Network has developed four specific aims to promote Learning-through-Diversity:

- Know the diverse backgrounds of your students and the implications for learning
- Identify curricular, teaching and assessment practices that promote learning for all
- Draw upon the diversity of your students to enhance and enrich the learning of all
- Recognize existing inequities, and promote an equitable, inclusive and respectful climate for learning

*More resources on the CIRTl Pillars are available at www.cirtl.net