CIRTL Massive Open Online Course (MOOC) Project

- Enhance the preparation of STEM future faculty to improve undergraduate STEM education through the use of evidence-based teaching and learning practices

- Offer career and professional development opportunities in teaching at multiple scales: globally, nationally, within institutions & departments, for individuals

- Two MOOCs offered through 3 delivery modes:
  - open participation
  - MOOC-Centered Learning Communities (MCLC)
  - eLearning modules

**An Introduction to Evidence-Based STEM Teaching**

**Advancing Learning Through Evidence-Based STEM Teaching**
CIRTL Massive Open Online Course: An Introduction to Evidence-Based STEM Teaching - Fall, 2014

- **4009 active participants; 1119 took at least one quiz**

- **Overall participation:** 30% grad students and 20% postdocs – hitting target audience; Also 30% faculty, split evenly between tenure-track, tenured and lecturers

- **566 completers - 14% rate**

- Postdocs completed at a 50% rate – implies large demand for preparation in teaching needed for postdocs

- STEM Grad students completed at a 40% rate

See: http://stemteachingcourse.org/

PIs - Henry (Rique) Campa III, Derek Bruff, Bennett Goldberg, Katherine Barnicle, Robert Mathieu
CIRTL Massive Open Online Course: An Introduction to Evidence-Based STEM Teaching - Fall, 2014

- **Principles of Learning**
- **Learning Objectives**
- **Assessment**
- **Cooperative Learning**
- **Peer Instruction**
- **Lecturing**
- **Inquiry-based Labs**
- **Writing to Learn**
- **Problem-based Learning**
- **Inclusive Teaching**
- **Student Motivation**

- **4000 participants** (did at least one activity); 1500 active participants
- **Overall participation**: 30% grad students and 20% postdocs – hitting target audience; Also 30% faculty, split evenly between tenure-track, tenured and lecturers
- **577 completers - 14% rate**
- Postdocs completed at a 50% rate – implies large demand for preparation in teaching needed for postdocs
- STEM Grad students completed at a 40% rate


PIs - Henry (Rique) Campa III, Derek Bruff, Bennett Goldberg, Katherine Barnicle, Robert Mathieu
Many individual learners in the MOOC, but also

- 47 MCLC, hosted globally (most in the US),
- 420 MCLC participants, 80% grad students and postdocs, most groups were interdisciplinary
- Participants in an MCLC were twice as likely to complete as individual participants
- Half the MCLCs were at non-CIRTL institutions, including Harvard, MIT, Tulane, Boise State, Michigan and Brandeis.

- Participants valued sharing teaching experiences; the accountability of weekly meetings; the chance to delve more deeply into a particular issue
- 90% of facilitators would do it again and 88% would recommend it to other faculty and instructors

See: http://stemteachingcourse.org/
CIRTL Massive Open Online Course:  
*An Introduction to Evidence-Based STEM Teaching - Fall, 2015*

We **JUST** finished our second offering!

2,293 visited the course. Of this group, 1,689 watched at least one lecture (all <10 min)

1,109 used the discussion forums; 763 completed at least one graded assignment.

Final grades for the course—402 “passed” the course by scoring at least a 70 out of 100.

17.5% completion (of all who visited the course)

67 MCLC globally! ~10 participants/MCLC; ~30% of participants were in an MCLC
Visit us, get engaged with professional development associated with the use of evidence-based teaching and learning practices! Others are!

http://stemteachingcourse.org/

Sign up to be an MCLC Facilitator
Get an “MCLC Facilitator’s Guide”!

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