

Online teaching and active learning: Flipping the classroom

This workshop is intended for Individuals with teaching and extension education responsibilities interested in acquiring knowledge and skills for online, active learning and flipped classroom instruction. The objectives are for the participants to:

1. Describe flipped classroom principles and pedagogy.
2. Identify required resources for successful delivery of a course in a flipped classroom format.
3. Understand the foundational skills required to develop online and face-to-face materials for flipped classroom delivery.

Brief Description:

The workshop will be conducted as a presentation focused on introductory concepts related to:

- 1) Online learning. A review will be conducted of online teaching/learning experiences by diverse institutions with a special focus on improving quality or learning and reducing the cost of instruction. In addition, the ADDIE methodology will be presented to familiarize teaching faculty with the development process of an online course. Barriers and conditions for success will be reviewed, including: required services and infrastructure, faculty and student competencies and skills, and required operational support.
- 2) Flipped classroom. The flipped classroom methodology will be presented, including learning theory, research findings, and the development and implementation of course modules for use with this innovative pedagogy.

Participants will be provided with the following instructional materials:

Busato, P., R. Berruto, F.S. Zazueta and A. Nicholson. (2015) Online Teaching and Active Learning: Flipping the Classroom. Office of Academic Technology, UFIT, University of Florida. 22p.

Busato, P. R. Berruto, F.S. Zazueta and J. Silva-Lugo (2016). Student performance in conventional and flipped classroom learning environments. *App. Eng. Agric.* 32(5). In press.

Busato, P. R. Berruto, and F.S. Zazueta (2016). A workbook for active learning pedagogy and andragogy. Office of Academic Technology, University of Florida, UFIT. 11p.

Instructors:

Dr. Patrizia Busato is an Assistant Professor at DISAFA, University of Turin, Italy. Her research program has focused primarily on logistics and production optimization, resource use in agricultural processes, bioenergy and sustainability. She has conducted research on active learning methodologies, focusing on flipped classroom instruction, related to learning effectiveness and student preferences. She is a member of ASABE and Associate Editor of the CIGR Journal.

Dr. Fedro Zazueta is Associate CIO and Professor at UFIT of the University of Florida, USA. He is charged with the direction of the Office of Academic Technology that includes the Center for Instructional Technology and Training that supports course development and the implementation of new pedagogical models at the enterprise level. He is an ASABE Fellow and Lifetime Honorary President of CIGR.

Collaborator:

Dr. Remigio Berruto is an Associate Professor at DISAFA, University of Turin Italy. His research and teaching program is focused on agricultural mechanics, transport optimization and sustainability, traceability and logistics of the agri-food chain, and agricultural information systems. He has taught engineering courses using active learning methods. He is a member of ASABE and Associate Editor of the CIGR Journal.