**Workshop Title:** Methods and Tools to Help Students Learn Core ChE Concepts

**Presenter:**

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**Abstract:**

The goal of this workshop is to provide you with specific educational methods and tools that you can incorporate into your classroom to encourage students to think deeply about the central concepts in core chemical engineering courses. The workshop pedagogical content will include the use of concept inventories, peer instruction and ConcepTests, repair of misconceptions, and technology-based tools to facilitate active pedagogies. In addition, an interactive web-based tool that we have developed called the Concept Warehouse will be introduced (<http://cw.edudiv.org/>). During the workshop, you will interactively learn how to navigate and use the Concept Warehouse. The Concept Warehouse will enable interactive delivery of workshop content and give you a direct way to use that content in your classes. You will be provided continued access to conceptual questions in core chemical engineering classes, including: Material and Energy Balances, Thermodynamics, Transport Phenomena, Kinetics and Reactor Design, and Materials Science. The bank of conceptual questions, the easily navigable software interface, and the other available resources will substantially lower the activation barrier for you to integrate the pedagogical methods into instruction and assessment. You will be able to contribute to the question bank and serve as reviewers for others. In addition, you will have access to tutorials and other resources on conceptual learning, peer instruction, and misconceptions available on the website.