# Where to Start When Teaching a New Course or Updating an Older Course?

You are assigned a new course, or you are teaching a course you have not taught in a few years. How should you start preparing for this course? Certainly you should talk to the person who previously taught the course and look through his/her handouts, homework assignments, and textbook. However, if you stop there you will miss the opportunity to enrich the course by learning from many ChE professors who have added new material to the CACHE Teaching Resources pages. These resources can lessen the time needed for course preparation, help improve your teaching, and help incorporate more computer-based methods into your course.

Bored with teaching the same course the same way for many years? The CACHE Teaching Resources pages will allow you to change the course as much as you want. If you make the course interesting for you, it will also be interesting for the students.

The Teaching Resources section (<http://cache.org/teaching-resources-center>) of the CACHE website was recently redesigned and updated. The links are current, recent developments have been incorporated, and essentially all the pages are organized in a similar format. The courses/topics for which resources are available include:

- *Introduction to Chemical Engineering*
- *Material and Energy Balances*
- *Fluid Mechanics*
- *Heat Transfer*
- *Statistics*
- *Engineering Mathematics*
- *Thermodynamics*
- *Kinetics/Reaction Engineering*
- *Separations/Mass Transfer*
- *Material Science/Polymer Science*
- *Process/Product Design*
- *Process Control*
- *Molecular Modeling*
- *Bioengineering*
- *Safety*
- *Conventional and Renewable Energy*
- *Teaching Topics*

For example, the kinetics/reaction engineering page contains example syllabi from two universities and links to: four textbooks; an extensive set of course notes from University of Buffalo (including videos, example problems, and MATLAB files); more than 300 screencasts videos; more than 30 interactive simulations; Reactor Lab simulations; 250 ConcepTests; software (Polymath, CHEMKIN, MESMER); kinetics databases; and other online resources. This page would be an excellent starting point for teaching an up-to-date kinetics/reaction engineering course.

CACHE (Computer Aids for Chemical Engineering) promotes the development and distribution of technology-based materials and software in chemical engineering education through projects applying computational chemical engineering, sponsoring conferences, recognizing outstanding contributions, and providing leadership in chemical engineering education. If, after reviewing the material on the resource pages, you have material you would like to add to page for a given course, please contact the person who manages that page (their email is at the top of the course page).

***Editor's Note:*** *While editing this teaching tip I went to the CACHE Resources website. I was pleasantly surprised by the breadth and quality of the information available. –Phil Wankat* ❐

—John L. Falconer, CACHE trustee, University of Colorado Boulder
and Michael A. Henson, CACHE President, University of Massachusetts, Amherst

Submit teaching tips of about 450 words to Phil Wankat, <wankat@ecn.purdue.edu> for review and editing. Subject: CEE Teaching Tip. See http://che.ufl.edu/CEE for guidelines.