Get students industry-ready with new Aspen Plus® Teaching Modules - Now Available

Today, engineers with AspenTech software skills are in unprecedented demand by the world's best companies. With AspenTech's University Program, professors and universities have the tools, training and software they need to teach the next generation of engineers and innovators.

Working with leading universities - including Columbia, MIT, PENN, Rowan, Tufts, UMASS, and Virginia Tech - AspenTech has developed 52 new Teaching Modules for Aspen Plus. The teaching modules are designed to be easily incorporated into any chemical engineering curriculum to help professors and students become familiar with Aspen Plus® in multiple courses and use hands-on tools to gain a better understanding of various process simulation exercises. Each module contains a background on the concept, an example of a problem, and a step by step solution to the example using Aspen Plus.

Available modules include:

- **Process Design**—Process design simulation allows the engineer to explore and evaluate different alternatives that best meet process requirements. Included in this module are a set of iterations to produce a basic process design.

- **Reactors**—Modeling reactors provides the basis for how chemical reaction and kinetics affect the process. Examples in the modules show how to use simulation for stoichiometry reactors, plug flow reactors, continuously stirred tank reactors (CSTR), and batch reactors.

- **Physical Properties –** The accuracy of physical property data is a pre-requisite for process design, simulation, troubleshooting and optimization. Included in this module are step by step examples on how to access the vast amount of physical data in Aspen Plus, how to create new molecules and estimate their properties, and how to use physical properties for process design.

- **Thermodynamics and Flash** —Physical properties and thermodynamics are essential to chemical engineering simulation. With the Aspen Plus Teaching Modules students are provided step-by-step examples on how to use simulation for steam table, equation of state, and flash calculations.

- **Distillation Columns**—Process simulation allows engineers to test the feasibility of different separations and compare and optimize designs. Students are provided instructions to simulate distillation columns using shortcut design calculations (DSTWU model) and a more rigorous multistage distillation model (RadFrac).

- **Convert Steady-State Simulation to a Dynamic Simulation**—Dynamic simulation allows engineers to investigate how fluctuations influence the performance of the overall process – crucial to process control. Students can convert a steady-state simulation to a dynamic simulation, and create parameter fluctuations and observe the dynamic effects.

- **Material and Energy Balances across a Process Flowsheet**—Heat and material balances can help plan for stream compositions and state variables (T, P, etc.). Process simulation can be utilized to solve complex problems, such as a process flowsheet. The Teaching Modules can be used to show how to use Aspen Plus® to simulate a simplified chemical process.

To learn more about the Aspen Plus Teaching Modules, view the short on-demand presentation https://www.brainshark.com/aspentech1/UniversityTeachingModules

To download the Aspen Plus Teaching Modules go to http://www.aspentech.com/university/teaching-modules/?terms=university%20teaching%20modules.

For more information on AspenTech's University Program, see www.aspentech.com/industry_solutions/universities/ or contact Boyd Gochenour (boyd.gochenour@aspentech.com) or Chris Yip (chris.yip@aspentech.com).