



Aspen Plus[®]

Study Guide for Aspen Academic User Certification



Grading

Grade	Weight
Multiple choice questions	100%

Prove Your Credibility

The certification is a must-have for any academic user new to Aspen Plus who wants to have the knowledge and tools needed to solve business problems. Passing this exam will demonstrate your skills in building process simulations including defining the properties environment, creating flowsheets with unit operations, and utilizing available tools for analysis and reporting.

Practice

AspenTech training is highly recommended though not required. This guide contains 100% coverage of all objectives required for the certification exam.

Get Certified

After passing the exam you will receive an email to post your certificate and digital badge on social media, which is a cross-industry recognition of technical skills you may share on LinkedIn, as well as in your email signature. [View the instructions](#) on how to post your credentials on LinkedIn profile

Exam Scope for Aspen Plus

- ☐ Properties Environment
- ☐ Simulation Environment
- ☐ Reporting
- ☐ Troubleshooting

Scope	Competency Objective for Aspen Plus
Explore Properties Environment	Select a startup template to begin a new simulation
	Create a component list and identify the different component databases available
	Identify issues involved in the choice of a property method and define a property method
	Explain the need for Henry's components
	Summarize the different types of physical property data
Explore Simulation Environment	Recognize the default unit sets and Customize unit sets
	Configure and customize flowsheet user preferences, options, and default settings
	Explain when to use the SSplit block in a flowsheet
	Identify the key differences in the three separator blocks Flash2 , Flash3 and Decanter
	List which unit operation blocks can be used to specify how the components split to the outlet streams
	Configure a component splitter to separate component streams based on split fractions specified
	Identify the heat exchanger model used to model convective or radiant heat transfer across a surface
	Select the heat exchanger model that can be integrated with Aspen Exchanger Design and Rating (EDR) tools
	List the column unit operations that incorporate shortcut methods for Vapor/Liquid calculations
	Identify which unit operation block is used for most distillation column models
	Determine parameters required to solve a column Identify different types of column specifications available in RadFrac
	Identify different types of column specifications available in RadFrac
	List the types of rigorous vapor-liquid fractionation operations that RadFrac can simulate
	Build different types of columns using RadFrac and manipulate the column specifications to meet the process objective
	Describe the difference between On-Stage and Above-Stage
	List the classes of reactor unit operations available in Aspen Plus
	Describe the characteristics of balanced based reactor models
	Identify which reactor models allow both equilibrium and kinetic based reactions
	Identify the option in RGibbs to insure both vapor and liquid phases are considered
	List situations where pressure changer blocks need to be included in a flowsheet
	Explain the difference between design and rating specifications for pump and compressor

	Identify the main difference between the pipe and pipeline unit operation
Explore Simulation Environment	List the options to write custom unit operation models
	List steps to create a new sensitivity
	Develop a design specification to get desired result and List the approaches to view design specification results
	Explain the use of parameters and local parameters
	Identify import variables and export variables
	Customize stream summary tables and save as new templates
	Explain how to add additional physical properties to the stream summary
	Explain how to change global stream data displayed decimal digits
Troubleshooting	Identify automatically generated convergence blocks
	Analyze error and warning messages and Recognize simulation sequence
	Explain the concept of error/tolerance
	Configure the default tear convergence settings to increase maximum number of iterations
	Use Check Status to check detailed information about errors or warning
	Report control panel messages in History file