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Questions about AspenTech Training:
Please contact your AspenTech Regional Service Center below. Press option 7 to speak with a Training Coordinator or a Customer Care Specialist.

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<tr>
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<tr>
<td>North &amp; Latin America (NLA)</td>
<td>+1 888 996 7100</td>
<td><a href="mailto:nala.training@aspentech.com">nala.training@aspentech.com</a></td>
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<td>Europe, Middle East, and Africa (EMEA)</td>
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<td>Asia and Pacific Region (APAC)</td>
<td>10 800 120 2160</td>
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To register for a course:
Go to the training center [website](#).
## PROCESS ENGINEERING

### EAP101: Aspen Plus Process Modeling
Learn steady-state process simulation, process analysis and optimization using Aspen Plus (3 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Build flowsheet models and summarize basic unit operations.
- Define facilities, materials, utilities and chemical reactions.
- Summarize physical properties.

### EAP121: Building MS Excel User Interfaces
Learn how to embed and link MS Excel using Aspen Plus (1 Day, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Integrate Aspen Simulation Workbook with add in tools in MS Excel®.
- Use features of the Aspen Simulation Workbook and publish and deploy models.

### EAP150: Rigorous Design and Rating of Distillation Columns (New)
Learn how interactively design and rate distillation columns in Aspen Plus (1 Day, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Discuss column design and rating.
- Do column designing and perform rating studies of a column.
- Use detailed rate-based modeling to understand and improve column performance.

### EAP2311: Custom Modeler
Learn how to develop equation models with excel using Custom Modeler (3 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Summarize Equation Oriented modeling, steady state / dynamic modes, and stream types.
- Build flowsheet and create sub models along with hierarchy blocks.
- Script, automate, and customize models.

### EAP2611: Heat Transfer Modeling Using Aspen Plus

**Prerequisites:** Attended EAP101

**Learning Outcomes:**
- Summarize Heat Exchanger Unit Operations.
- Distinguish between the different types of heat exchangers that can be used in Aspen Plus.
- Perform rigorous heat changer design calculations using Aspen EDR.

### EAP901: Aspen Plus – Dryer Optimization: Minimize Energy Demand of Belt Dryers
Learn how to reduce energy demand using Aspen Plus (0.5 days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Model a multi-stage bed dryer.
- Optimize the dryer demand to reduce cost.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAP902</td>
<td>Aspen Plus – Improving Product Recovery in Distillation Column</td>
<td>Learn how to perform maximum product recovery using Aspen Plus (0.5 days, Basic).</td>
<td>None</td>
<td>• Model distillation units and analyze potential process changes.</td>
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<td>• Optimize distillation units for maximum product recovery.</td>
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<td></td>
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<td></td>
<td></td>
<td>• Apply Physical Properties, Henrys Law, and Electrolyte Property Methods.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>• Use regression and analyze data.</td>
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<tr>
<td>EAP208</td>
<td>Aspen Plus: Migration to V8</td>
<td>Learn new engineering features in version 8 using Aspen Plus (1 Day, Intermediate).</td>
<td>None</td>
<td>• Create simulations in the new user interface.</td>
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<td></td>
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<td></td>
<td>• Use activated economics analysis, activated energy analysis, and activated energy analysis.</td>
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<td>• Model solids.</td>
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<tr>
<td>EAP250</td>
<td>Distillation Modeling</td>
<td>Learn how to simulate and evaluate model quality using Aspen Plus (2 Days, Intermediate).</td>
<td>Attended EAP101</td>
<td>• Use RadFrac models for rating and design and for reporting features.</td>
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<td></td>
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<td></td>
<td>• Use column analysis and NQ curves for optimization.</td>
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<td></td>
<td>• Use reactive distillation, three-phase distillation, and rate-based distillation.</td>
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<tr>
<td>EAP251</td>
<td>Aspen-Rate Distillation</td>
<td>Learn how to create accurate simulations of column separations. (1 Day, Intermediate).</td>
<td>Attended EAP101</td>
<td>• Compare the operation of the equilibrium RadFrac model to Aspen Rate Based Distillation.</td>
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<td></td>
<td>• Use a Calculator Block to make corrections for tuning parameter adjustments.</td>
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<td>• Apply different convergence strategies.</td>
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<td>• Document the full overpressure analysis.</td>
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<td>• Design single or multiple relief valves.</td>
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</tbody>
</table>
EAP281: Aspen Plus: Process Simulation with Aspen Polymers
Learn how to use Aspen Polymers to model polymerization process (3 Days, Intermediate).
Prerequisites: Attended EAP101
Learning Outcomes:
- Define complete polymer process flowsheet models.
- Estimate polymer properties and perform regression from experimental data.
- Apply engineering studies and plant data fitting.

EAP288: Introduction to Aspen Adsorption
Learn how to build and execute simulations rapidly using Aspen Adsorption (2 Days, Intermediate).
Prerequisites: None
Learning Outcomes:
- Build simple to advanced flowsheets and run simulations.
- Apply cyclic steady state models to flowsheet.
- Use parameter estimation.

EAP289: Aspen Chromatography
Learn how to build and execute simulations rapidly using Aspen Chromatography (2 Days, Intermediate).
Prerequisites: Attended EAP2311
Learning Outcomes:
- Build flowsheets using the batch column and other supporting models.
- Create cyclic processes.
- Create and execute Chromatography.

EAP2121: Process Flowsheet Convergence in Aspen Plus
Learn how to develop robust and efficient models using Aspen Plus (1 Day, Intermediate).
Prerequisites: Attended EAP101
Learning Outcomes:
- Discuss sequential module strategy.
- Create simulations to handle tear stream convergence and specify calculation sequence.
- Summarize calculator blocks.

EAP2211: Modeling Processes with Equation Oriented Method using Aspen Plus
Learn how to configure, manipulate and solve flows in EO solution using Aspen Plus (2 Days, Intermediate).
Prerequisites: Attended EAP101
Learning Outcomes:
- Manipulate a flowsheet and run simulations.
- Heat integrate your process using the Heater / HX Flux combination.
- Use parameter estimation and data reconciliation for model tuning.

EAP2411: Improved Process Operability and Control through Aspen Plus Dynamic Models
Learn how to solve process design and plant operation using Aspen Plus Dynamics (3 Days, Intermediate).
Prerequisites: Attended EAP101
Learning Outcomes:
- Create a flowsheet and run simulations.
- Discuss and create models including: RadFrac, heat exchanger, and reactor models.
- Script, automate, and customize custom models.
**EAP2510: C02 Removal Path Using Aspen Plus**
Learn the steps involved in properly modeling C02 removal processes using Aspen Plus (3 Days, Intermediate).

**Prerequisites:** Attended EAP101

**Learning Outcomes:**
- Describe approach for modeling C02 removal using physical solvents.
- Determine property parameters using data regression and property estimation.
- Use electrolyte system modeling.
- Build and tune rate based distillation models, sensitivity analysis, and flowsheets.

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**EAP2711: Reaction Analysis and Reactor Design using Aspen Plus**
Learn how to model various reactors and analyze results using Aspen Plus (2 Days, Intermediate).

**Prerequisites:** Attended EAP101

**Learning Outcomes:**
- Model reactors.
- Calculate reaction rates.
- Use the Aspen Plus Data Fit tool to estimate and reconcile plant or lab data.

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**EAP2911: Solids Modeling Using Aspen Plus**
Learn how to model processes containing solids handling equipment using Aspen Plus (2 Days, Intermediate).

**Prerequisites:** Attended EAP101

**Learning Outcomes:**
- Model processes containing solids.
- Determine optimal process conditions for new or existing solids processes.

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**EAP2980: Modeling of Processes with Aqueous Ionic Solutions Electrolytes and Salts**
Learn how to set up simulations for electrolyte systems using Aspen Plus (2 Days, Intermediate).

**Prerequisites:** Attended EAP101

**Learning Outcomes:**
- Summarize electrolyte capabilities in Aspen Plus and types of components present.
- Use appropriate reporting options.
- Use equilibrium based and rate-based distillation modeling along with liquid-liquid equilibrium.

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**EAP301: Real Time Modeling and Optimization**
Learn how to do real time optimization using the EO strategy in Aspen Plus (4 Days, Advanced).

**Prerequisites:** Attended EAP101

**Learning Outcomes:**
- Manipulate a flowsheet and run simulations.
- Use parameter estimation and data reconciliation for model tuning.
- Optimize to maximize plant profit.

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**EPD101: Aspen Batch Process Developer**
Learn how to model batch data and interpret results using Aspen Batch Process Developer (2 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Use route selection and cost analysis in early development stage.
- Define facilities, materials, utilities, and chemical reactions.
- Create production plans and recipe.
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Learning Outcomes</th>
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</thead>
<tbody>
<tr>
<td>EPD201:</td>
<td>Aspen Batch Modeler</td>
<td>Learn how to simulate batch distillation processes using Aspen Batch Modeler</td>
<td>None</td>
<td>• Set up batch distillation for physical properties.</td>
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<td>• Use batch distillation in multiple scenarios.</td>
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<td>• Use reactor data and models for data fitting and modeling batch reactor with fitted kinetics.</td>
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<td></td>
<td>• Summarize how the data regression run type drives Aspen Solubility Modeler.</td>
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<td></td>
<td>• Calculate solubility in various solvent types quickly and efficiently.</td>
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<tr>
<td>EOP171:</td>
<td>Develop and Implement Operator Training Simulator (OTS) using Aspen OTS</td>
<td>Learn Aspen OTS Framework using Aspen Plus Dynamics or Aspen HYSYS Dynamics</td>
<td>None</td>
<td>• Use, configure, and implement Aspen OTS to design operator training simulator.</td>
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<td>• Explain the concepts of OPC Server and OPC Client.</td>
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<td>• Use plant view resources.</td>
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<tr>
<td>EHY101:</td>
<td>Aspen HYSYS Process Modeling</td>
<td>Learn how to build and troubleshoot flowsheet simulation models using Aspen HYSYS</td>
<td>None</td>
<td>• Build flowsheet models and summarize basic unit operations.</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>• Define facilities, materials, utilities and chemical reactions.</td>
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<tr>
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<td></td>
<td>• Summarize physical properties.</td>
</tr>
<tr>
<td>EHY102:</td>
<td>Modeling and Troubleshoot Refinery using Aspen HYSYS</td>
<td>Learn how to build and optimize simulations using Aspen HYSYS Petroleum Refining</td>
<td>None</td>
<td>• Build, run, analyze, and optimize process simulations using Aspen.</td>
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<tr>
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<td></td>
<td>• HYSYS and Aspen HYSYS Petroleum Refining.</td>
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<td>• Summarize refinery reactor capabilities in Aspen HYSYS.</td>
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<tr>
<td>EHY105:</td>
<td>Refining: Operations &amp; Troubleshooting of the Crude Unit &amp; Preheat Train (New)</td>
<td>Learn how to solve common engineering problems using Aspen HYSYS</td>
<td>None</td>
<td>• Use specific applications to troubleshoot and perform engineering studies.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Description</td>
<td>Prerequisites</td>
<td>Learning Outcomes</td>
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<tr>
<td>EHY106</td>
<td><strong>Optimize from the Wellhead to a Gas Processing Facility with Aspen HYSYS</strong> (New)</td>
<td>Learn how to optimize using Aspen HYSYS Upstream and Aspen HYSYS (1 Day, Basic).</td>
<td>None</td>
<td>• Use the latest features in Aspen HYSYS and Aspen HYSYS Upstream for optimization.</td>
</tr>
<tr>
<td>EHY107</td>
<td><strong>Process Safety with BLOWDOWN Technology and PSV Sizing in Aspen HYSYS</strong> (New)</td>
<td>Learn how various simulator functionalities support the process safety using Aspen HYSYS (1 Day, Basic).</td>
<td>None</td>
<td>• Use PRF Design &amp; Rating. • Use Blowdown Valve Design &amp; Rating.</td>
</tr>
<tr>
<td>EHY121</td>
<td><strong>Building MS Excel User Interfaces</strong></td>
<td>Learn how to embed and link MS Excel using Aspen HYSYS (1 Day, Basic).</td>
<td>None</td>
<td>• Integrate Aspen Simulation Workbook with add in tools in MS Excel®. • Use features of the Aspen Simulation Workbook and publish and deploy models. • Link models to plant process data.</td>
</tr>
<tr>
<td>EHY150</td>
<td><strong>Refinery Process Modeling using Aspen HYSYS and Aspen HYSYS Petroleum Refining</strong></td>
<td>Learn how to embed and link MS Excel using Aspen HYSYS (1 Day, Basic).</td>
<td>None</td>
<td>• Use flowsheet models to build models and analyze flowsheet convergence issues. • Use the following models: Catalytic Reformer, Delayed Cooker, and Visbreaker. • Use Aspen PIMS for refinery planning and scheduling with Aspen HYSYS.</td>
</tr>
<tr>
<td>EHY2314</td>
<td><strong>Developing Dynamic Unit Operation Extensions for Aspen HYSYS using VB.NET</strong></td>
<td>Learn VB.NET to implement Dynamic Unit Operation Extension model using Aspen HYSYS (1 Day, Basic).</td>
<td>None</td>
<td>• Describe the fundamentals of creating the base code for Dynamic Unit Operation Extension. • Use the VB.NET environment and implement Dynamic Unit Operation Extension model. • Optimize the implemented code.</td>
</tr>
<tr>
<td>EHY2511</td>
<td><strong>Flare Network Design and Rating</strong></td>
<td>Learn how to reduce capital cost and assure the safety of the plant using Aspen HYSYS (2 Days, Basic).</td>
<td>None</td>
<td>• Identify potential process bottlenecks, and validate the capacity of the flare network.</td>
</tr>
</tbody>
</table>
### EHY2611: Heat Transfer Modeling Using Aspen HYSYS – EHY2611
Learn how to integrate Aspen HYSYS with heat exchanger modeling software (1 Day, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Compare the different types of heat exchangers with focus on shell & tube and air cooled.
- Embed a rigorous heat exchanger model using the Activated EDR feature.
- Generate physical properties to use in Aspen Exchanger and Rating programs.

### EHY901: Multi-Stage Compressors – Conducting Operational Safety Studies Using Dynamic Analysis
Learn how to use Aspen HYSYS Dynamics to evaluate scenarios software using Aspen HYSYS (0.5 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Evaluate several scenarios to ensure the compressor is protected in an emergency shutdown.

### EHY902: Crude Unit Optimization – Deboillenecking Options using Aspen HYSYS
Compare options for increasing crude unit throughput capacity using Aspen HYSYS (0.5 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Evaluate scenarios to reduce costs or improve the likely outcomes.

### EHY903: Characterization, Manipulation and Utilization of Petroleum Assays
Learn the modeling techniques for petroleum characterization using Aspen HYSYS (0.5 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Use Petroleum Assay Management tools.

### EHY904: PSV – Improve Pressure Relief Analysis Workflow using Aspen HYSYS
Learn how to use HYSYS Dynamics, HYSYS Safety Environment, and Flare System Analyzer (0.5 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Use Dynamics, Safety Environment, and Flare System Analysis to complete the pressure relief analysis.

### EHY905: Aspen HYSYS Sulsim – Modeling and Optimizing Sulfur Recovery Process
Learn how to optimize overall Sulfur recovery, and build a tail gas treating section (0.5 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Use Aspen HYSYS and the Sulsim Sulfar Recovery functionality.
- Optimize overall Sulfar recovery.
- Evaluate new process configurations.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<th>Duration</th>
<th>Prerequisites</th>
<th>Learning Objectives</th>
</tr>
</thead>
</table>
• Calculate hydrate formation temperatures and pressures.  
• Use the LNG Exchanger operation to simulate multi-pass heat exchangers. |
| EHY202      | Aspen HYSYS Advanced Process Modeling Topics | Learn how to apply advanced modeling techniques to enhance flowsheets (2 Days, Intermediate). | 2 Days | Attended EHY101 | • Build a plant model and use LNG Exchanger operation to simulate multi-pass heat exchangers.  
• Simulate vessel depressurization and complex relief scenarios.  
• Define reaction sets and utilize different types of reactor models. |
| EHY208      | Aspen HYSYS: Migration to V8 Topics – EHY208 | Become familiar with version 8 using Aspen HYSYS (1 Day, Intermediate). | 1 Day | Attended EHY101 | • Discuss improved workflow, plotting capabilities, and new features.  
• Use safety analysis environment.  
• Use Assay Management. |
| EHY223      | Aspen HYSYS Dynamics: Introduction to Dynamic Modeling | Build dynamic models and discovery shortcuts using Aspen HYSYS Dynamics (3 Days, Intermediate). | 3 Days | Attended EHY121 | • Create dynamic simulations to model real equipment.  
• Use PID controllers and Strip Charts.  
• Use pipeline modeling options in Aspen HYSYS. |
| EHY250      | Determine Rapid Depressurization Safety Limits for Design and Rating | Learn how to use the Blowdown Technology to model depressurization (0.5 Days, Intermediate). | 0.5 Days | Attended EHY101 | • Discuss the industrial importance of accurate depressurizing simulations.  
• Add BLOWDOWN analysis to an existing Aspen HYSYS simulation.  
• Perform design and rating calculations. |
| EHY251      | Flare Network Design and Rating | Solve Complex problems using Aspen Flare System Analyzer (2 Days, Intermediate). | 2 Days | None | • Summarize the capabilities and Aspen Flare System Analyzer.  
• Perform process safety studies. |
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<th>Learning Outcomes</th>
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<td>• Document the full overpressure analysis with Aspen HYSYS.</td>
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<td>• Integrate reactors with flowsheet: Reactors, Fluidized Catalytic Cracking (FCC) Reactor, Hydrocracker Reactor.</td>
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<td>• Use Aspen PIMS.</td>
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<td>• Develop programming style using VS Syntax.</td>
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<td>• Use tools such as the HYSYS Type Library, automation objects, VB Debugger, and Macro Language Editor.</td>
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<tr>
<td>EHY2312</td>
<td><strong>Create Custom Unit Operations and Kinetic Model Extensions with VB.net for Aspen HYSYS</strong></td>
<td>Learn how to develop custom unit operations using Aspen HYSYS (2 Days, Intermediate).</td>
<td>Attended EHY2311</td>
<td>• Develop programming style using VB Syntax.</td>
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<td>• Use tools such as the HYSYS Type Library, automation objects, and user unit operations.</td>
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<td>• Use extensions definition file (EDF) for building kinetic reaction extension and unit operation extensions.</td>
</tr>
<tr>
<td>EHY2351</td>
<td><strong>Modeling Heavy Oil &amp; Gas Production and facilities using Aspen HYSYS Upstream</strong></td>
<td>Learn new advanced capabilities of Aspen HYSYS Upstream (2 Days, Intermediate).</td>
<td>None</td>
<td>• Summarize the Aspen HYSYS Upstream concepts.</td>
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<td>• Use Heavy Oil Characterization.</td>
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<td>• Convert steady state into dynamics.</td>
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<tr>
<td>EAU2831</td>
<td><strong>Introduction to Energy Optimization Using Aspen Utilities Planner</strong></td>
<td>Reduce risk and optimize utility variability using Aspen Utilities Planner (2 Days, Basic).</td>
<td>None</td>
<td>• Develop and optimize utilities flowsheet with Excel Interface.</td>
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<td>• Minimize the total utilities cost by considering economic, operational and environmental constraints.</td>
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<td>• Run multi-period optimization to establish the optimum loads on utility equipment.</td>
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<td>Course Code</td>
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<tr>
<td>EAU901</td>
<td><strong>Energy Management – Optimizing Site Utilities to Save Energy using Aspen Utilities Planner</strong></td>
<td>Learn Energy and Utilities optimization (0.5 Days, Basic).</td>
<td>None</td>
<td>- Use a pre-built model make decisions to optimize tariff evaluation, manage contracts, and plan investments.</td>
</tr>
<tr>
<td>EHX101</td>
<td><strong>Design and Rate Shell and Tube Heat Exchangers</strong></td>
<td>Learn how to integrate Heat Exchangers with Aspen HYSYS or Aspen Plus (2 Days, Basic).</td>
<td>None</td>
<td>- Summarize Shell and Tube Heat Exchanger features, calculation modes and geometry.</td>
</tr>
<tr>
<td>EHX131</td>
<td><strong>Heat Exchanger Mechanical Design using Aspen Shell &amp; Tube Mechanical</strong></td>
<td>Learn optimizing techniques to save design time and cost using Aspen Shell &amp; Tube Mechanical (1 Day, Basic).</td>
<td>None</td>
<td>- Summarize Shell and Tube Mechanical features and capabilities.</td>
</tr>
<tr>
<td>EHX1021</td>
<td><strong>Design and Rate Air Cooled Heat Exchangers</strong></td>
<td>Learn the general considerations of Air Cooled Exchangers (1 Day, Basic).</td>
<td>None</td>
<td>- Summarize Aspen Air Cooled Exchanger features, calculation modes, and capabilities.</td>
</tr>
<tr>
<td>EHX1031</td>
<td><strong>Design and Simulation of Fired Heaters Using Aspen Fired Heater</strong></td>
<td>Learn the fundamentals of rating and simulating a fired heater (1 Day, Basic).</td>
<td>None</td>
<td>- Summarize Aspen Fired Heater features and capabilities.</td>
</tr>
<tr>
<td>EHX1041</td>
<td><strong>Introduction to Aspen Plate Fin Exchanger</strong></td>
<td>Learn the fundamentals of simulating a plate fin heat exchanger (1 Day, Basic).</td>
<td>None</td>
<td>- Summarize Aspen Plate Fin Exchanger features and capabilities.</td>
</tr>
</tbody>
</table>
### EHX1100: Modeling Heat Exchangers Using the Exchanger Design and Rating Suite
Learn how to integrate Heat Exchangers with Aspen HYSYS or Aspen Plus (3 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Summarize Shell and Tube Heat Exchanger features, calculation modes and geometry.
- Discuss the characteristics and applicability of tubular crossflow exchangers.
- Practice by using suite features and functionality: Aspen Air Cooled Exchanger, Plate Fin Exchanger, and Fired Heater.

### EHX2911: Improved Energy Efficiency through Heat Integration
Design better and more efficient heat exchanger networks (2 Days, Basic).
**Prerequisites:** EHY101
**Learning Outcomes:**
- Summarize Aspen Energy Analyzer features and capabilities.
- Simulate heat exchanger networks.

### EHX901: LNG – Designing and Evaluating the Performance of Air Coolers and LNG Heat Exchangers
Learn how to perform design and rating calculations of air-cooled and LNG heat exchanger (0.5 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Use design and rating calculations of air-cooled and LNG heat exchangers.
- Implement parametric studies using Aspen Simulation Workbook.

### EHX902: LNG – Refinery Exchangers – Designing and Evaluating the Performance of a Preheat Train
Learn Aspen Exchanger Design & Rating with Aspen HYSYS (0.5 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Overcome the challenges in the design and simulation of CDU heat exchangers.

### EHX903: Reboilers – Designing and Troubleshooting Thermosiphon Reboilers
Perform design and rating calculations using Aspen Simulation Workbook (0.5 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Explore the impact of changing operating conditions.
- Use Reboiler Wizard and its ability to simplify more detailed modeling of reboilers in RadFrac models.

### EEE901: Develop Comparisons using Aspen Capital Cost Estimator
Learn how to accelerate the decision-making process for evaluating a construction project (0.5 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Improve and accelerate the decision-making process for evaluating the construction methodology for a project.
### EEE101: Introduction to Capital Cost Estimator
Use capital Cost Estimator to evaluate your company’s projects (4 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Define project scope, material, labor costs, buildings, site development, and piping specifications.
- Make detailed adjustments to a project per local area conditions.
- Apply your project knowledge to topics for Contracts, Engineering, Construction, and project schedule.

### EEE102: Introduction to Aspen Process Economic Analyzer
Learn to develop an economic evaluation and design using Aspen Process Economic Analyzer (3 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Use existing simulation models to evaluate project economics and maximize your return on investment.
- Gather detailed design results by integrating operating cost, capital cost, and schedule.
- Analyze different process alternatives in simulation and determine the most profitable approach.

### EE201: Aspen Capital Cost Estimator: Advanced Topics
Learn how to build detailed project estimates using Aspen Capital Cost Estimator (5 Days, Advanced).

**Prerequisites:** Attended EEE101, EEE103

**Learning Outcomes:**
- Use existing simulation models to evaluate equipment costs and labor requirements.
- Define Contracts Work Scope, unit rates, and user piping envelope.
- Use system documentation for consistent cost estimations.

### EBE101: Aspen Basic Engineering: End User Basics
Learn how to conduct engineering studies and projects using Aspen Basic Engineering (2 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Create process flow diagram using the Drawing Editor.
- Integrate tools to perform cost calculations and perform detailed heat exchanger design.
- Create P&IDs.

### EBE201: Aspen Basic Engineering: Project and Administrator Configuration
Learn how to configure ABE to create a customized knowledge base (2 Days, Intermediate).

**Prerequisites:** Attended EBE101

**Learning Outcomes:**
- Discuss features, capability, and architecture implementation options of Aspen Basic Engineering (ABE).
- Create class libraries, define datasheets, and create symbols and labels.
- Integrate tools such as the Bridge Application.

## ADVANCED PROCESS CONTROL

### APC100: AspenOne Advanced Process Control – Installation and Configuration
Learn how to deploy the Advanced Control Product suite (2 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Access various functions of Production Control Web Server (PCWS) and Install the AspenWatch Server.
- Migrate APC Software.
### APC101: Intro to Aspen DMCplus for APC Engineers
Learn how Aspen DMCplus and Aspen DMC3 models are developed through step testing (5 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Identify characteristics of linear versus nonlinear, dynamic, and empirical models.
- Use DMCplus and DMC3 Models.

### APC105: Introduction to Aspen Process Controller Builder for APC Engineers
Learn how to troubleshoot typical problems with an Aspen DMCplus or Aspen DMC3 online controller (5 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Identify characteristics of linear versus nonlinear, dynamic, and empirical models.
- Use DMCplus and DMC3 Mode.
- Use Production Control Web Server (PCWS) to interact w/ controller.

### APC120: Intro to AspenOne – Operating and Maintaining Controllers Online
Learn how to model test methods and procedures using DMCplus and DMC3 controller (2 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Identify characteristics of linear versus nonlinear, dynamic, and empirical models.
- Use DMCplus and DMC3 Mode.
- Use Production Control Web Server (PCWS) to interact w/ controller.

### APC121: Intro to Aspen DMCplus Modeling and Building Controllers for Industrial Processes
Learn how to build applications and calculation modules using DMCplus controllers (3 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Identify characteristics of linear, dynamic, and empirical models.
- Use DMCplus and DMC3 Models.
- Connect online controller to operate a plant.

### APC125: Modeling and Building Controllers for Industrial Processes
Learn how to model test methods and procedures using DMCplus and DMC3 controller (3 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Identify characteristics of linear versus nonlinear, dynamic, and empirical models.
- Use DMCplus and DMC3 Model.
- Connect online controller to operate a plant.

### APC150: Achievable Sustainable APC Benefits Using Adaptive Process Control (New)
Learn how to reduce maintenance workload by using Aspen DMC3 (2 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Run Aspen DMC3 Calibration mode to collect plant step test data.
- Evaluate controller performance using Aspen Watch performance monitoring.
- Improve models through the Adaptive Workflow.
APC160: Recipe Management and Process Sequencing
Learn how to create recipes and download to InfoPlus.21 (2 Days, Basic).
Prerequisites: None
Learning Outcomes:
- Create Control Recipe from scratch and existing templates.
- Administer Aspen Process Recipe System security.
- Use Production Control Web Server (PCWS).

APC170: Intro to Aspen Inferential Qualities
Learn how to use Aspen IQmodel to develop linear steady state inferential predictors (3 Days, Intermediate).
Prerequisites: Attended APC101
Learning Outcomes:
- Develop Aspen IQ models.
- Use PCWS to interact w/ controller.

APC185: Introduction to Nonlinear Controllers Using Aspen Process Controller Builder
Prerequisites: None
Learning Outcomes:
- Use Aspen Watch support for plant testing.
- Simulate a controller using Production Control Web Server (PCWS).

APC210: Aspen Watch Performance Monitor — Real Time Monitoring Controllers Online
Learn to use Aspen Watch to monitor the performance of DMCplus Controllers (3 Days, Intermediate).
Prerequisites: None
Learning Outcomes:
- Use Aspen Watch support for plant testing.
- Evaluate controller performance using Aspen Watch performance monitoring.

APC220: APC Best Practices — Adaptive Processes Control
Become familiar with Aspen DMC3 for APC maintenance and deployment workflows (0.5 Days, Intermediate).
Prerequisites: None
Learning Outcomes:
- Run Aspen DMC3 Calibration mode to collect plant step test data.
- Evaluate controller performance using Aspen Watch performance monitoring.

APC221: APC Best Practices — Controller Tuning and Robustness
Learn Smart Tune and Robustness features using Aspen DMC3 (0.5 Days, Intermediate).
Prerequisites: None
Learning Outcomes:
- Run Aspen DMC3 Calibration mode to collect plant step test data.
- Use Smart Tune to setup pre-defined controller LP strategy.
APC230: Aspen DMCplus – APC Project Pretesting Using a Virtual Plant
Learn how to use a virtual plant to execute the pre-testing phase of an APC Project (2 Days, Intermediate).
Prerequisites: None
Learning Outcomes:
• Discuss APC Project Pretesting.
• Complete an APC pre-testing project.

APC240: Aspen DMCplus – APC Project Step Testing and Commissioning Using a Virtual Plant
Configure DMCplus Online, Aspen Watch and APC Web Server software (3 Days, Intermediate).
Prerequisites: None
Learning Outcomes:
• Conduct preliminary plant testing as you would execute the pre-testing phase of an APC project.
• Collect and Extract Data.

APC250: Aspen DMC3 – APC Calibrate and Aspen Adaptive Modeling
Learn the fundamentals of Calibrate mode for APC applications (3 Days, Intermediate)
Prerequisites: Attended APC101, APC105 and APC240
Learning Outcomes:
• Configure and tune controllers on the APC builder platform.
• Complete adaptive modeling and commission a DMC3 controller.

MANUFACTURING EXECUTION SYSTEMS
MES021: Process Analysis Using aspenOne Process Explorer (New)
Learn how to use analytical tools to identify reasons for performance shortfalls (0.5 Days, Basic).
Prerequisites: None
Learning Outcomes:
• Incorporate context in analysis to improve problem solving.
• Use ad-hoc events for analyzing continuous processes and performance issues.
• Use assessment tools to monitor production records and equipment performance.

MES101: Aspen InfoPlus.21 Real Time Information Management Foundation
Learn how to deploy the Advanced Control Product suite (5 Days, Basic).
Prerequisites: None
Learning Outcomes:
• Summarize Aspen InfoPlus.21 features and capabilities to effectively monitor critical plant data.
• Implement and configure an Aspen InfoPlus.21 system.
### MES121: AspenOne Process Explorer: Using and Configuring
Learn how to use AspenOne Process Explorer interface to trend process data (3 days, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Summarize features and capability of AspenOne Process Explorer.  
- Customize trend plots to suit your application.  
- Specify plots based on statistical analysis of process data.

### MES122: Aspen Process Explorer: Using and Configuring
Learn how to view data from your process using Aspen Process Explorer (1 day, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Customize trend plots to suit your application.  
- Specify plots based on statistical analysis of process data.  
- Integrate real-time or historic data from your process into Windows desktop programs.

### MES123: Aspen Calc: Using and Configuring
Learn how to use Aspen InfoPlus.21 without programming (1.5 days, Basic).

**Prerequisites:** Attended MES122  
**Learning Outcomes:**  
- Build simple and complex calculations that use formulas, Excel, and VB Script.  
- Create ad-hoc and share calculations.  
- Create and view reports.

### MES151: Aspen Operations Reconciliation and Accounting (AORA)
Learn how to supervise and maintain an AORA system (3 days, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Build the AORA model using vessels, pipes, and instruments.  
- Import Data and perform AORA database administration.  
- Generate reports and automate AORA processes.

### MES171: Aspen Production Record Manager: Retrieving Batch Data Using the Reporting Tools
Learn the Reporting tools of Aspen Production Record Manager using Aspen InfoPlus.21 (1 day, Basic).

**Prerequisites:** Attended MES122  
**Learning Outcomes:**  
- Build simple and complex calculations that use formulas, Excel, and VB Script.  
- Create ad-hoc and share calculations.  
- Create and view reports.

### MES1200: Calculations and Data Analysis for Engineers
Learn how to make decisions based on the process data stored using Aspen InfoPlus.21 (3 days, Basic).

**Prerequisites:** Attended MES122  
**Learning Outcomes:**  
- Build simple and complex calculations integrated with Aspen InfoPLus.21 without programming.  
- Analyze historic data.  
- Configure key performance indicator (KPIs) to monitor unit performance and retrieve plant data into Microsoft Excel.
MES201: Aspen SQLplus for Aspen InfoPlus.21: Using and Configuring for Power Users
Learn how to write and run SQL queries using Aspen InfoPlus.21 data (5 Days, Intermediate).
Prerequisites: Attended MES101
Learning Outcomes:
- Use intermediate to advanced SQL statements to view or manipulate data.
- Integrate real-time or historic data.
- Create customized reports.

MES205: Aspen InfoPlus.21: System Administration
Learn the best practices for performing an Aspen InfoPlus.21 system upgrade (2 Days, Intermediate).
Prerequisites: Attended MES101
Learning Outcomes:
- Use intermediate to advanced SQL statements to view or manipulate data.
- Create customized reports.
- Optimize the way in which SQL is used for processing.

MES222: Building Content for Aspen Roles Based Visualization (RBV)
Enable real-time quality control using RBV (3 Days, Intermediate).
Prerequisites: None
Learning Outcomes:
- Discuss RBV capabilities.
- Build RBV content.
- Review security requirements.

MES231: Building Content for Aspen Roles Based Visualization (RBV)
Learn how to improve users access to critical information using Aspen RBV (3 Days, Intermediate).
Prerequisites: Attended MES201
Learning Outcomes:
- Create and modify records that support SPC product.
- Implement an SPC system.
- Monitor and report on variables that influence product quality.

Learn how to reduce manufacturing costs using aspenONE Process Explorer (2 Days, Intermediate).
Prerequisites: None
Learning Outcomes:
- Use the SPC tools to monitor and improve process quality, as well as reduce manufacturing costs.
- Implement an SPC system.
- Monitor and report on variables that influence product quality.

MES261: Aspen Product Execution Manager: Programming Concepts
Learn how to develop an application using an Aspen Production Execution Manager (3 Days, Intermediate).
Prerequisites: None
Learning Outcomes:
- Develop an Aspen Product Execution Manager application.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Course Description</th>
<th>Prerequisites</th>
<th>Learning Outcomes</th>
</tr>
</thead>
</table>
| MES271      | Aspen Production Record Manager: Configuring the Batch Area and Feed Application | Learn how to prepare and configure a Batch system (2 Days, Intermediate). | Attended MES171 | - Describe the functional design, architecture and main features of Aspen Production Record Manager (APRM).  
- Configure Batch Feed Application.  
- Use Aspen Process Explorer to examine both Ad Hoc and Online Batch Real-time SPC chart. |
| MES275      | Aspen Batch and Event Extractor: Transferring Data from Batch Execution Systems | Learn how to populate tables from your batch execution system (1 Day, Intermediate). | None | - Populate Aspen Production Record Manager tables with data from your batch execution systems.  
- Create, schedule, test, and deploy configuration rules.  
- Monitor execution progress and verify that batches have been created. |
| MES311      | Aspen InfoPlus.21 Applications Development | Learn how to tailor Aspen InfoPlus.21 records to fit your process (5 Days, Advanced). | Attended MES201 | - Summarize how the historian works.  
- Implement advanced features and implement role based security for Aspen InfoPlus.21 and client applications. |
| MES361      | Aspen Production Execution Manager - Administration | Learn how to use the Production Execution Manager Web Server (2 Days, Advanced). | None | - Create and assign roles, permissions, workstations, and workstation roles.  
- Use appropriate Aspen Production Execution Manager modules to create and track orders.  
- Use the Production Execution Manager Web Server. |
# PETROLEUM SUPPLY CHAIN

## RPA100: Essential PIMS Concepts and Economic Analysis for Managers & Economists
Learn how to use the report data to perform economic evaluations using Aspen PIMS (4 Days, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Analyze and interpret information for an executed model and develop Linear Programming structure.  
- Perform economic evaluations.  
- Use PIMS Assay Management.

## RPA101: Aspen PIMS: Introduction to Refinery Planning
Learn to build refinery planning models in PIMS to generate optimum plans (5 Days, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Develop Linear Programming (LP) structure.  
- Use data tables, case stacking, and product blending required to build and maintain a model.  
- Use PIMS Assay Management, PIMS Miscellaneous Tables, and Aspen PIMS Analytics.

## RPA102: Introduction to Aspen PIMS for Petrochemical Planning
Learn to build petrochemical planning models in PIMS to generate optimum plans (3.5 Days, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Build petrochemical planning models to generate optimum plans.  
- Develop Linear Programming (LP) structure.  
- Use structures for developing typical petrochemical process units.

## RPA135: Economic Optimization of Distribution Networks using Aspen Petroleum Supply Planner
Learn how to use Aspen MPIMS to solve planning problems using Aspen MPIMS (4 Days, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Summarize the functionality of Aspen Petroleum Supply Planner and basic Linear Concepts.  
- Solve problems using Aspen Petroleum Supply Planner.

## RPA150: Deliver Refinery Planning Results through Industry Best Practices (New)
Learn PIMS / PIMS-AO best practices (1 Day, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Troubleshoot common modeling mistakes  
- Solve problems using PIMS-AO

## RPA153: Aspen Report Writer for Aspen PIMS
Build reports using PIMS, Aspen Petroleum Scheduler and Aspen Multi-Blend Optimizer (1 Day, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Use the data functions using different data sets.  
- Build Report Writer templates to generate reports in Excel format.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPA206</td>
<td><strong>Multi-Period Refinery Modeling with Aspen PPIMS</strong></td>
<td>Learn how to build and analyze a multi-period LP models using Aspen PIMS (2 Days, Basic)</td>
<td>None</td>
<td>• Explain the differences between non-periodic and periodic models.</td>
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<td></td>
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<td></td>
<td></td>
<td>• Transfer inventory from period-to-period.</td>
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<td>• Control blending recipes across multiple periods.</td>
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<td>RPA207</td>
<td><strong>Multiple Plant Planning with Aspen MPIMS Users</strong></td>
<td>Learn how to use Aspen MPIMS to solve planning problems using Aspen MPIMS (2 Days, Basic).</td>
<td>None</td>
<td>• Discuss how Aspen MPIMS is used to link multiple single plant Aspen PIMS models.</td>
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<td></td>
<td>• Use various tables to evaluate models and transfer materials into local plants.</td>
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<td>• Summarize global and local reports.</td>
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<tr>
<td>RPA201</td>
<td><strong>Aspen PIMS: Solving Refinery Planning Problems</strong></td>
<td>Learn how to model and interpret sophisticated plant relationships using Aspen PIMS (5 Days, Intermediate).</td>
<td>Attended RPA101</td>
<td>• Implement real-world plant into your Aspen PIMS planning model.</td>
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<td>• Identify &amp; resolve problems that may hinder a planner’s productivity.</td>
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<td>• Perform common economic evaluations.</td>
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<tr>
<td>RPA208</td>
<td><strong>Aspen PIMS platinum and Assay Manager for Experienced Aspen PIMS Users</strong></td>
<td>Learn how to customize Aspen PIMS Platinum and modify assay data (1 Day, Intermediate).</td>
<td>None</td>
<td>• Run a case using Aspen PIMS Platinum Case Runner.</td>
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<td>• Execute a Spot Crude Evaluation using Aspen Assay Management.</td>
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<td>• Modify assay data using Aspen Assay Management.</td>
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<tr>
<td>RPA221</td>
<td><strong>Aspen PIMS: Advanced Optimization Features</strong></td>
<td>Learn to troubleshoot solutions inherent to non-linear optimization problems (2 Days, Intermediate).</td>
<td>Attended RPA101</td>
<td>• Execute different Global Optimization procedures.</td>
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<td>• Set Up and run High Performance Computing architecture.</td>
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<td>• Add and edit non-linear formulas to model.</td>
</tr>
<tr>
<td>RPA301</td>
<td><strong>Aspen PIMS: Advanced Refinery Planning</strong></td>
<td>Learn how to troubleshoot problems and use PIM’s non-linear functionalities (5 Days, Advanced).</td>
<td>Attended RPA201</td>
<td>• Model rigorous blending.</td>
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<td></td>
<td>• Use non-linear functionalities.</td>
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<td></td>
<td>• Perform Solution Analysis using Aspen PIMS-Advanced Optimization tool.</td>
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<td>Course Code</td>
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<td>Prerequisites</td>
<td>Learning Outcomes</td>
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<td></td>
<td>• Build a process flowsheet and simulate a refinery model.</td>
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<td>• Integrate products such as Aspen Report Writer, Refinery Report Wizard, and Excel Integration (EIU).</td>
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<td>• Part 2: Model solutions for both common and unique configuration and schedule logic problems.</td>
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<tr>
<td>RBS131</td>
<td>Aspen Refinery Multi-Blend Optimizer: Blend Planning and Scheduling</td>
<td>Learn how to build a model for seamless scheduling and optimization of daily blend activities (2 Days, Basic).</td>
<td>None</td>
<td>• Identify the planning, scheduling and blending integrated work process.</td>
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<td>• Configure and build an MBO model with all the necessary components to run the optimizer.</td>
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<tr>
<td>RBS901</td>
<td>Using Aspen Petroleum Scheduler for Crude &amp; Process Unit Scheduling</td>
<td>Learn how to use Aspen Petroleum Scheduler in this hands-on workshop (0.5 Days, Basic).</td>
<td>None</td>
<td>• Perform crude and process unit scheduling.</td>
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<td>• Import daily inventories and events for the &quot;Roll Forward&quot; process.</td>
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<td>• Generate reports using customizable report wizard templates.</td>
</tr>
<tr>
<td>SCM121</td>
<td>Using Aspen Petroleum Scheduler for Crude &amp; Process Unit Scheduling</td>
<td>Learn how to build or modify a new scheduling model for plants using Aspen Plant Scheduler (3 Days, Basic)</td>
<td>None</td>
<td>• Build models that manufactures or packages basic chemicals or polymers.</td>
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<td>• Configure an Aspen Plant Scheduler model by following the steps.</td>
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<tr>
<td>SCM201</td>
<td>Introduction to aspenOne Supply Chain Management V8 for Modelers</td>
<td>Learn the new configuration steps using aspenONE Supply Chain Management (Aspen SCM) (4 Days, Basic).</td>
<td>None</td>
<td>• Use XML programming.</td>
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<td></td>
<td>• Use Trace functionality</td>
</tr>
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<td></td>
<td>• Review best practices to upgrade</td>
</tr>
</tbody>
</table>
### SM905: Building a Planning Model
Learn the new configuration steps using aspenONE Supply Chain Management (Aspen SCM) (3 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Use a business problem through this course to: build and solve an LP model and build reports.
- Automate model maintenance and execution.
- Create and execute macros, solve mixed integer programming, and use scenario-based planning.

### SM906: Configuring aspenOne Supply Chain Management Applications
Learn the basics of aspenONE Supply Chain Management (Aspen SCM) (4 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Manipulate data via commands, macros, and rules.
- Design user interfaces via dialogs, graphs, menus, workspaces and reports.
- Use application basics such as utility programs, case size management, and security.

### SM908: Configuring the Aspen Demand Manager CAP
Learn the basics of Aspen Demand Manager CAP (3 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Discuss business issues and how demand and supply planning process can solve the issues.
- Run reports.
- Configure forecast metrics and collaborate forecasting.

### SCM912: Implementing Aspen Supply Planner
Learn the basics of Aspen Supply Chain Planner (2 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Define time periods and specify correct optimizer.
- Set up data maintenance, model generation, model optimization, scenario creation, and analysis.
- Discuss how changes to the LP formulation impact other Supply Planner structures.

### SM913: Using Aspen Supply Planner
Learn how to use Supply Planner efficiently for business planning (2 Days, Basic)
**Prerequisites:** None
**Learning Outcomes:**
- Discuss examples of how Aspen Supply Planner can help with planning issues.
- Generate and publish a plan.
- Discuss plan analysis including bottleneck analysis and “what if” analysis.

### SM915: Implementing Aspen Collaborative Forecasting
Learn the basics of Aspen Collaborative Forecasting application (2 Days, Basic)
**Prerequisites:** Attended SM908
**Learning Outcomes:**
- Discuss business issues and how Collaborate Forecasting can solve the issues.
- Use the Aspen Collaborative Forecasting Web Based Application.
- Discuss main stages of implementation and how to manage security along with operation.

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA101</td>
<td>Monitor Distillation Column Operation to Predict and Prevent Failures (New)</td>
<td>Learn to predict and prevent column failures using Aspen Column Analytic (1 Day, Basic).</td>
<td>Attended SM908</td>
<td>• Describe RadFrac.</td>
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<td>• Model a C2 splitter.</td>
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<td>• Use Aspen Asset and Aspen Column Analytics.</td>
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<td>AAA102: Early Failure Detection using Pattern Matching, Root Cause Analysis</td>
<td>Learn how to monitor and optimize asset performance using Aspen Column Analytic (1 Day, Basic).</td>
<td>None</td>
<td>• Identify Data Trends with Aspen Pattern Matching.</td>
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<td></td>
<td>and Empirical Modeling (New)</td>
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<td></td>
<td>• Build a distillation model based on empirical data.</td>
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<tr>
<td>AFR101</td>
<td>Introduction to Aspen Fidelis Reliability</td>
<td>Learn how to generate predictions of future performance using Aspen Fidelis Reliability (3 Days, Basic).</td>
<td>None</td>
<td>• Discuss the fundamentals of asset management, system engineering, reliability modeling.</td>
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<td>• Build simple to medium complexity models.</td>
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<td>• Change basic inputs, view results and customize any model for specific requirements.</td>
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<td>AFR150</td>
<td>Maximize Plant Performance using Reliability Analysis (New)</td>
<td>Learn how to generate predictions of future performance using Aspen Fidelis Reliability (3 Days, Basic).</td>
<td>None</td>
<td>• Discuss the fundamentals of making economic cases to drive decisions.</td>
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<td>• Identify system limitations.</td>
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<td>APR101</td>
<td>Aspen Mtell Previse: Deploy &amp; Use</td>
<td>Learn how to stop machines from breaking down and to last longer using Aspen Mtell Previse (3 Days, Basic).</td>
<td>None</td>
<td>• Perform conditioning and analysis of time-series sensor data.</td>
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<td>• Build and deploy advanced condition monitoring strategies.</td>
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<td>• Implement Operator Maintenance Advisory capabilities enabling operators to track open work orders.</td>
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<tr>
<td>PMV101</td>
<td>Optimize Plant Performance using multivariate data analysis</td>
<td>Learn how to use Aspen ProMV to improve understanding of key process relationships (2 Days, Basic).</td>
<td>None</td>
<td>• Use multi-block modelling to model your process.</td>
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<td>• Identify key contributors to poor process performance.</td>
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<td>• Optimize process performance.</td>
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</table>
**PMV121: Optimize Batch Process Performance using multivariate data analysis**
Learn how to relate time-varying process data using Aspen ProMV (1 Day, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Use multi-block modelling to model your batch process.
- Identify key contributors to poor process performance for batch processes.
- Optimize process performance for batch processes.

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**LICENSE MANAGEMENT**

**SLM101: Aspen Software License Management and Deployment**
Learn the installation and configuration process (2 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Explain the purpose and requirements of Software License Manager.
- Install and configure a license server along with the SLM client tools.