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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>
<th>Region</th>
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<tbody>
<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><a href="mailto:emea.training@aspentech.com">emea.training@aspentech.com</a></td>
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<tr>
<td>Asia and Pacific Region (APAC)</td>
<td>10 800 120 2160</td>
<td><a href="mailto:apac.training@aspentech.com">apac.training@aspentech.com</a></td>
</tr>
</tbody>
</table>

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.
**EAP902: Aspen Plus – Improving Product Recovery in Distillation Column**
Learn how to perform maximum product recovery using Aspen Plus (0.5 days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Model distillation units and analyze potential process changes.
- Optimize distillation units for maximum product recovery.

**EAP201: Aspen Plus: Physical Properties for Process Engineers**
Learn how to specify and use physical properties using Aspen Plus (2 Days, Intermediate).

**Prerequisites:** Attended EAP101

**Learning Outcomes:**
- Specify and use properties in steady-state and dynamic flowsheet simulations.
- Apply Physical Properties, Henrys Law, and Electrolyte Property Methods.
- Use regression and analyze data.

**EAP208: Aspen Plus: Migration to V8**

**Prerequisites:** None

**Learning Outcomes:**
- Create simulations in the new user interface.
- Use activated economics analysis, activated energy analysis, and activated energy analysis.
- Model solids.

**EAP250: Distillation Modeling**
Learn how to simulate and evaluate model quality using Aspen Plus (2 Days, Intermediate).

**Prerequisites:** Attended EAP101

**Learning Outcomes:**
- Use RadFrac models for rating and design and for reporting features.
- Use column analysis and NQ curves for optimization.
- Use reactive distillation, three-phase distillation, and rate-based distillation.

**EAP251: Aspen-Rate Distillation**
Learn how to create accurate simulations of column separations. (1 Day, Intermediate).

**Prerequisites:** Attended EAP101

**Learning Outcomes:**
- Compare the operation of the equilibrium RadFrac model to Aspen Rate Based Distillation.
- Use a Calculator Block to make corrections for tuning parameter adjustments.
- Apply different convergence strategies.

**EAP252: Pressure Relief Analysis Using Aspen Plus**
Learn how to define overpressure systems using Aspen Plus (1 Day, Intermediate).

**Prerequisites:** Attended EAP101

**Learning Outcomes:**
- Define overpressure systems in accordance with API 520, 521, 2000.
- Document the full overpressure analysis.
- Design single or multiple relief valves.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Duration</th>
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<th>Learning Outcomes</th>
</tr>
</thead>
</table>
| EAP281      | **Aspen Plus: Process Simulation with Aspen Polymers** | 3 Days, Intermediate | Attended EAP101                   | **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**  | 2 Days, Intermediate | None                             | **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**              | 2 Days, Intermediate | Attended EAP2311                   | **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** | 1 Day, Intermediate | Attended EAP101                   | **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** | 2 Days, Intermediate | Attended EAP101                   | **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** | 3 Days, Intermediate | Attended EAP101                   | **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.

### 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.

### EAP2911: Solids Modeling Using Aspen Plus
Learn how to model processes containing solids handing 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.

### 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.

### 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.

### 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.
**EPD201: Aspen Batch Modeler**
Learn how to simulate batch distillation processes using Aspen Batch Modeler (2 Days, Intermediate).

**Prerequisites:** None

**Learning Outcomes:**
- Set up batch distillation for physical properties.
- Use batch distillation in multiple scenarios.
- Use reactor data and models for data fitting and modeling batch reactor with fitted kinetics.

**EPD213: Aspen Properties: Introduction to Aspen Solubility Modeler**
Learn how to evaluate solubility in various solvents using Aspen Solubility Modeler (0.5 Days, Intermediate).

**Prerequisites:** None

**Learning Outcomes:**
- Describe NRTL-SAC and electrolyte NRTL-SAC activity coefficient models.
- Summarize how the data regression run type drives Aspen Solubility Modeler.
- Calculate solubility in various solvent types quickly and efficiently.

**EOP171: Develop and Implement Operator Training Simulator (OTS) using Aspen OTS**
Learn Aspen OTS Framework using Aspen Plus Dynamics or Aspen HYSYS Dynamics (2 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Use, configure, and implement Aspen OTS to design operator training simulator.
- Explain the concepts of OPC Server and OPC Client.
- Use plant view resources.

**EHY101: Aspen HYSYS Process Modeling**
Learn how to build and troubleshoot flowsheet simulation models using Aspen HYSYS (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.

**EHY102: Modeling and Troubleshoot Refinery using Aspen HYSYS**
Learn how to build and optimize simulations using Aspen HYSYS Petroleum Refining (3 Days, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Build, run, analyze, and optimize process simulations using Aspen.
- HYSYS and Aspen HYSYS Petroleum Refining.
- Summarize refinery reactor capabilities in Aspen HYSYS.

**EHY105: Refining: Operations & Troubleshooting of the Crude Unit & Preheat Train (New)**
Learn how to solve common engineering problems using Aspen HYSYS (1 Day, Basic).

**Prerequisites:** None

**Learning Outcomes:**
- Use specific applications to troubleshoot and perform engineering studies.
<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>EHY106</td>
<td>Optimize from the Wellhead to a Gas Processing Facility with Aspen HYSYS (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>Process Safety with BLOWDOWN Technology and PSV Sizing in Aspen HYSYS (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.</td>
</tr>
<tr>
<td>EHY121</td>
<td>Building MS Excel User Interfaces</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®.</td>
</tr>
<tr>
<td>EHY150</td>
<td>Refinery Process Modeling using Aspen HYSYS and Aspen HYSYS Petroleum Refining</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>Developing Dynamic Unit Operation Extensions for Aspen HYSYS using VB.NET</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>Flare Network Design and Rating</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 – Debottlenecking 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>
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</thead>
<tbody>
<tr>
<td>EHY130</td>
<td><strong>Modeling Liquefied Natural Gas Plant Using Aspen HYSYS - Upstream</strong></td>
<td>Learn how to use Aspen HYSYS Upstream for Liquefied Natural Gas plant modeling (2 Days, Intermediate).</td>
<td>Attended EHY101</td>
<td>• Build a Sulfur Recovery Unit.</td>
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<td></td>
<td></td>
<td>• Calculate hydrate formation temperatures and pressures.</td>
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<td>• Use the LNG Exchanger operation to simulate multi-pass heat exchangers.</td>
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<tr>
<td>EHY202</td>
<td><strong>Aspen HYSYS Advanced Process Modeling Topics</strong></td>
<td>Learn how to apply advanced modeling techniques to enhance flowsheets (2 Days, Intermediate).</td>
<td>Attended EHY101</td>
<td>• Build a plant model and use LNG Exchanger operation to simulate multi-pass heat exchangers.</td>
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<td></td>
<td>• Simulate vessel depressurization and complex relief scenarios.</td>
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<td>• Define reaction sets and utilize different types of reactor models.</td>
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<tr>
<td>EHY208</td>
<td><strong>Aspen HYSYS: Migration to V8 Topics – EHY208</strong></td>
<td>Become familiar with version 8 using Aspen HYSYS (1 Day, Intermediate).</td>
<td>Attended EHY101</td>
<td>• Discuss improved workflow, plotting capabilities, and new features.</td>
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<td></td>
<td>• Use safety analysis environment.</td>
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<td>• cUse Assay Management.</td>
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<tr>
<td>EHY223</td>
<td><strong>Aspen HYSYS Dynamics: Introduction to Dynamic Modeling</strong></td>
<td>Build dynamic models and discovery shortcuts using Aspen HYSYS Dynamics (3 Days, Intermediate).</td>
<td>Attended EHY121</td>
<td>• Create dynamic simulations to model real equipment.</td>
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<td>• Use PID controllers and Strip Charts.</td>
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<td>• Use pipeline modeling options in Aspen HYSYS.</td>
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<tr>
<td>EHY250</td>
<td><strong>Determine Rapid Depressurization Safety Limits for Design and Rating</strong></td>
<td>Learn how to use the Blowdown Technology to model depressurization (0.5 Days, Intermediate).</td>
<td>Attended EHY101</td>
<td>• Discuss the industrial importance of accurate depressurizing simulations.</td>
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<td>• Add BLOWDOWN analysis to an existing Aspen HYSY simulation.</td>
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<td>• Perform design and rating calculations.</td>
</tr>
<tr>
<td>EHY251</td>
<td><strong>Flare Network Design and Rating</strong></td>
<td>Solve Complex problems using Aspen Flare System Analyzer (2 Days, Intermediate).</td>
<td>None</td>
<td>• Summarize the capabilities and Aspen Flare System Analyzer.</td>
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<td></td>
<td>• Perform process safety 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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</tbody>
</table>
• Document the full overpressure analysis with Aspen HYSYS.  |
• Integrate reactors with flowsheet: Reactors, Fluidized Catalytic Cracking (FCC) Reactor, Hydrocracker Reactor.  
• Use Aspen PIMS.  |
• Develop programming style using VS Syntax.  
• Use tools such as the HYSYS Type Library, automation objects, VB Debugger, and Macro Language Editor.  |
| EHY2312     | Create Custom Unit Operations and Kinetic Model Extensions with VB.net for Aspen HYSYS | Learn how to develop custom unit operations using Aspen HYSYS (2 Days, Intermediate). | Attended EHY2311                            | • Develop programming style using VB Syntax.  
• Use tools such as the HYSYS Type Library, automation objects, and user unit operations.  
• Use extensions definition file (EDF) for building kinetic reaction extension and unit operation extensions.  |
| EHY2351     | Modeling Heavy Oil & Gas Production and facilities using Aspen HYSYS Upstream | Learn new advanced capabilities of Aspen HYSYS Upstream (2 Days, Intermediate). | None                                       | • Summarize the Aspen HYSYS Upstream concepts.  
• Use Heavy Oil Characterization.  
• Convert steady state into dynamics.  |
| EAU2831     | Introduction to Energy Optimization Using Aspen Utilities Planner            | Reduce risk and optimize utility variability using Aspen Utilities Planner (2 Days, Basic). | None                                       | • Develop and optimize utilities flowsheet with Excel Interface.  
• Minimize the total utilities cost by considering economic, operational and environmental constraints.  
• Run multi-period optimization to establish the optimum loads on utility equipment.  |
**EAU901: Energy Management – Optimizing Site Utilities to Save Energy using Aspen Utilities Planner**
Learn Energy and Utilities optimization (0.5 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Use a pre-built model make decisions to optimize tariff evaluation, manage contracts, and plan investments.

**EHX101: Design and Rate Shell and Tube Heat Exchangers**
Learn how to integrate Heat Exchangers with Aspen HYSYS or Aspen Plus (2 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Summarize Shell and Tube Heat Exchanger features, calculation modes and geometry.
- Identify best practices for choosing physical properties for heat exchanger modeling.
- Rigorously rate a variety of heat exchanger types.

**EHX131: Heat Exchanger Mechanical Design using Aspen Shell & Tube Mechanical**
Learn optimizing techniques to save design time and cost using Aspen Shell & Tube Mechanical (1 Day, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Summarize Shell and Tube Mechanical features and capabilities.
- Identify input requirements needed to design a heat exchanger.
- Perform the mechanical calculations, and interpret the results.

**EHX1021: Design and Rate Air Cooled Heat Exchangers**
Learn the general considerations of Air Cooled Exchangers (1 Day, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Summarize Aspen Air Cooled Exchanger features, calculation modes, and capabilities.
- Discuss the characteristics and applicability of tubular crossflow exchangers.
- Practice by using the Aspen Air Cooled Exchanger features and capabilities.

**EHX1031: Design and Simulation of Fired Heaters Using Aspen Fired Heater**
Learn the fundamentals of rating and simulating a fired heater (1 Day, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Summarize Aspen Fired Heater features and capabilities.
- Practice by using the Aspen Fired Heater features and capabilities.

**EHX1041: Introduction to Aspen Plate Fin Exchanger**
Learn the fundamentals of simulating a plate fin heat exchanger (1 Day, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Summarize Aspen Plate Fin Exchanger features and capabilities.
- Practice by using the Aspen Plate Fin Exchanger features and capabilities.
### 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.
<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Learning Outcomes</th>
</tr>
</thead>
</table>
| APC101       | Intro to Aspen DMCplus for APC Engineers                                                          | Learn how Aspen DMCplus and Aspen DMC3 models are developed through step testing (5 Days, Basic). | None          | - 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). | None          | - 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). | None          | - 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). | None          | - 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). | None          | - 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).                    | None          | - 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.                                                                                                                                                                                                                                               |
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>APC160</td>
<td>Recipe Management and Process Sequencing</td>
<td>Learn how to create recipes and download to InfoPlus.21 (2 Days, Basic).</td>
<td>None</td>
<td>• Create Control Recipe from scratch and existing templates.</td>
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<td></td>
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<td></td>
<td></td>
<td>• Administer Aspen Process Recipe System security.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Use Production Control Web Server (PCWS).</td>
</tr>
<tr>
<td>APC170</td>
<td>Intro to Aspen Inferential Qualities</td>
<td>Learn how to use Aspen IQmodel to develop linear steady state inferential predictors (3 Days, Intermediate).</td>
<td>Attended APC101</td>
<td>• Develop Aspen IQ models.</td>
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<tr>
<td></td>
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<td></td>
<td>• Use PCWS to interact w / controller.</td>
</tr>
<tr>
<td>APC185</td>
<td>Introduction to Nonlinear Controllers Using Aspen Process Controller Builder</td>
<td>Simulate and tune a nonlinear controller using Aspen Process Controller Builder (3 Days, Intermediate).</td>
<td>None</td>
<td>• Use Aspen Watch support for plant testing.</td>
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<td></td>
<td></td>
<td>• Simulate a controller using Production Control Web Server (PCWS).</td>
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<tr>
<td>APC210</td>
<td>Aspen Watch Performance Monitor – Real Time Monitoring Controllers Online</td>
<td>Learn to use Aspen Watch to monitor the performance of DMCplus Controllers (3 Days, Intermediate).</td>
<td>None</td>
<td>• Use Aspen Watch support for plant testing.</td>
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<td></td>
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<td></td>
<td></td>
<td>• Evaluate controller performance using Aspen Watch performance monitoring.</td>
</tr>
<tr>
<td>APC220</td>
<td>APC Best Practices – Adaptive Processes Control</td>
<td>Become familiar with Aspen DMC3 for APC maintenance and deployment workflows (0.5 Days, Intermediate).</td>
<td>None</td>
<td>• Run Aspen DMC3 Calibration mode to collect plant step test data.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Evaluate controller performance using Aspen Watch performance monitoring.</td>
</tr>
<tr>
<td>APC221</td>
<td>APC Best Practices – Controller Tuning and Robustness</td>
<td>Learn Smart Tune and Robustness features using Aspen DMC3 (0.5 Days, Intermediate).</td>
<td>None</td>
<td>• Run Aspen DMC3 Calibration mode to collect plant step test data.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>• Use Smart Tune to setup pre-defined controller LP strategy.</td>
</tr>
</tbody>
</table>
**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.

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**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.
### MES271: Aspen Production Record Manager: Configuring the Batch Area and Feed Application
Learn how to prepare and configure a Batch system (2 Days, Intermediate).

**Prerequisites:** Attended MES171

**Learning Outcomes:**
- 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).

**Prerequisites:** None

**Learning Outcomes:**
- 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).

**Prerequisites:** Attended MES201

**Learning Outcomes:**
- 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).

**Prerequisites:** None

**Learning Outcomes:**
- 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.
<table>
<thead>
<tr>
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<th>Prerequisites</th>
<th>Learning Outcomes</th>
</tr>
</thead>
</table>
| 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). | None         | • 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). | None         | • 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). | None         | • 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). | None         | • 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).                           | None         | • Troubleshoot common modeling mistakes  
• Solve problems using PIMS-AO |
• Build Report Writer templates to generate reports in Excel format. |
<table>
<thead>
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<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPA206</td>
<td>Multi-Period Refinery Modeling with Aspen PPIMS</td>
<td>Learn how to build and analyze a multi-period LP models using Aspen PIMS</td>
<td>None</td>
<td>• Explain the differences between non-periodic and periodic models.</td>
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<td></td>
<td></td>
<td>(2 Days, Basic)</td>
<td></td>
<td>• Transfer inventory from period-to-period.</td>
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<td></td>
<td>• Control blending recipes across multiple periods.</td>
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<tr>
<td>RPA207</td>
<td>Multiple Plant Planning with Aspen MPIMS Users</td>
<td>Learn how to use Aspen MPIMS to solve planning problems using Aspen MPIMS</td>
<td>None</td>
<td>• Discuss how Aspen MPIMS is used to link multiple single plant Aspen PIMS models.</td>
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<tr>
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<td>(2 Days, Basic)</td>
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<td>• Use various tables to evaluate models and transfer materials into local plants.</td>
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<td></td>
<td>• Summarize global and local reports.</td>
</tr>
<tr>
<td>RPA201</td>
<td>Aspen PIMS: Solving Refinery Planning Problems</td>
<td>Learn how to model and interpret sophisticated plant relationships using</td>
<td>Attended RPA101</td>
<td>• Implement real-world plant into your Aspen PIMS planning model.</td>
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<td></td>
<td></td>
<td>Aspen PIMS (5 Days, Intermediate).</td>
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<td>• Identify &amp; resolve problems that may hinder a planner’s productivity.</td>
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<td></td>
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<td>• Perform common economic evaluations.</td>
</tr>
<tr>
<td>RPA208</td>
<td>Aspen PIMS platinum and Assay Manager for Experienced Aspen PIMS Users</td>
<td>Learn how to customize Aspen PIMS Platinum and modify assay data</td>
<td>None</td>
<td>• Run a case using Aspen PIMS Platinum Case Runner.</td>
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<td></td>
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<td>• Modify assay data using Aspen Assay Management.</td>
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<tr>
<td>RPA221</td>
<td>Aspen PIMS: Advanced Optimization Features</td>
<td>Learn to troubleshoot solutions inherent to non-linear optimization problems</td>
<td>Attended RPA101</td>
<td>• Execute different Global Optimization procedures.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2 Days, Intermediate).</td>
<td></td>
<td>• Set Up and run High Performance Computing architecture.</td>
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<td></td>
<td></td>
<td>• Add and edit non-linear formulas to model.</td>
</tr>
<tr>
<td>RPA301</td>
<td>Aspen PIMS: Advanced Refinery Planning</td>
<td>Learn how to troubleshoot problems and use PIM’s non-linear functionalities</td>
<td>Attended RPA201</td>
<td>• Model rigorous blending.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5 Days, Advanced).</td>
<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>
</tr>
</tbody>
</table>
Learn how to use Aspen Petroleum Scheduler effectively for daily scheduling operations (2 Days, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Discuss refinery scheduling management issues.  
- Build a process flowsheet and simulate a refinery model.  
- Integrate products such as Aspen Report Writer, Refinery Report Wizard, and Excel Integration (EIU).

### RBS121: Aspen Petroleum Scheduler: Building and Using Models
Learn how to setup processes using Aspen Petroleum Scheduler (5 Days, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Part 1: Use Petroleum Scheduler to build a model and schedule the refinery operations.  
- Part 2: Model solutions for both common and unique configuration and schedule logic problems.

### RBS131: Aspen Refinery Multi-Blend Optimizer: Blend Planning and Scheduling
Learn how to build a model for seamless scheduling and optimization of daily blend activities (2 Days, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Identify the planning, scheduling and blending integrated work process.  
- Configure and build an MBO model with all the necessary components to run the optimizer.

### RBS901: Using Aspen Petroleum Scheduler for Crude & Process Unit Scheduling
Learn how to use Aspen Petroleum Scheduler in this hands-on workshop (0.5 Days, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Perform crude and process unit scheduling.  
- Import daily inventories and events for the “Roll Forward” process.  
- Generate reports using customizable report wizard templates.

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### SUPPLY CHAIN MANAGEMENT

#### SCM121: Using Aspen Petroleum Scheduler for Crude & Process Unit Scheduling
Learn how to build or modify a new scheduling model for plants using Aspen Plant Scheduler (3 Days, Basic)

**Prerequisites:** None  
**Learning Outcomes:**  
- Build models that manufactures or packages basic chemicals or polymers.  
- Configure an Aspen Plant Scheduler model by following the steps.

#### SCM201: Introduction to aspenOne Supply Chain Management V8 for Modelers
Learn the new configuration steps using aspenONE Supply Chain Management (Aspen SCM) (4 Days, Basic).

**Prerequisites:** None  
**Learning Outcomes:**  
- Use XML programming.  
- Use Trace functionality  
- Review best practices to upgrade
### 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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**ASSET PERFORMANCE MANAGEMENT**
### AAA101: Monitor Distillation Column Operation to Predict and Prevent Failures *(New)*
Learn to predict and prevent column failures using Aspen Column Analytic (1 Day, Basic).
**Prerequisites:** Attended SM908
**Learning Outcomes:**
- Describe RadFrac.
- Model a C2 splitter.
- Use Aspen Asset and Aspen Column Analytics.

### AAA102: Early Failure Detection using Pattern Matching, Root Cause Analysis and Empirical Modelling *(New)*
Learn how to monitor and optimize asset performance using Aspen Column Analytic (1 Day, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Identify Data Trends with Aspen Pattern Matching.
- Build a distillation model based on empirical data.

### AFR101: Introduction to Aspen Fidelis Reliability
Learn how to generate predictions of future performance using Aspen Fidelis Reliability (3 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Discuss the fundamentals of asset management, system engineering, reliability modeling.
- Build simple to medium complexity models.
- Change basic inputs, view results and customize any model for specific requirements.

### AFR150: Maximize Plant Performance using Reliability Analysis *(New)*
Learn how to generate predictions of future performance using Aspen Fidelis Reliability (3 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Discuss the fundamentals of making economic cases to drive decisions.
- Identify system limitations.

### APR101: Aspen Mtell Previse: Deploy & Use
Learn how to stop machines from breaking down and to last longer using Aspen Mtell Previse (3 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Perform conditioning and analysis of time-series sensor data.
- Build and deploy advanced condition monitoring strategies.
- Implement Operator Maintenance Advisory capabilities enabling operators to track open work orders.

### PMV101: Optimize Plant Performance using multivariate data analysis
Learn how to use Aspen ProMV to improve understanding of key process relationships (2 Days, Basic).
**Prerequisites:** None
**Learning Outcomes:**
- Use multi-block modelling to model your process.
- Identify key contributors to poor process performance.
- Optimize process performance.
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.

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.