aspentech

Aspen Classroom Learning Course Catalog

July 2018 – June 2019

Contents

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To register for a course:
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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.
- Link models to plant process data.

EAP150: Rigorous Design and Rating of Distillation Columns
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.

EAP151: Monitor Distillation Column Operation to Predict and Prevent Failures
Learn how to find patterns, document patterns, and use comment searched to find patterns (1 Day, Basic).
Prerequisites: None
Learning Outcomes:
- Summarize aspen pattern matching
- Use column analytics to minimize column operating issues

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
Improve performance of heat exchangers in the overall process using Aspen Plus (1 Day, Basic).
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.

EAP202: Modeling Batch Processes using Aspen Plus (New)
Learn how to specify and use physical properties using Aspen Plus (2 Days, Intermediate).
Prerequisites: Attended EAP101
Learning Outcomes:
- Model various batch processes
- Troubleshoot common modeling mistakes

EAP204: Modeling Petrochemicals Processes using Aspen Plus (New)
Learn how to specify and use physical properties using Aspen Plus (5 Days, Intermediate).
Prerequisites: None
Learning Outcomes:
- Build and converge flowsheets
- Model using complex configuration, reactive distillation, and three phase distillations
- Compare reactor types
- Use process improvement tools
- Use sensitivity analysis to study relationships between process variables

EAP208: Aspen Plus: Migration to V8
Learn new engineering features in version 8 using Aspen Plus (1 Day, Intermediate).
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.

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.

EAP2311: Build Custom Simulation Models using Aspen Custom Modeler
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.

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 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: Attended EAP201
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
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.

EHY106: Optimize from the Wellhead to a Gas Processing Facility with Aspen HYSYS
Learn how to optimize using Aspen HYSYS Upstream and Aspen HYSYS (1 Day, Basic).
Prerequisites: None
Learning Outcomes:
- Use the latest features in Aspen HYSY and Aspen HYSYS Upstream for optimization.

EHY107: Process Safety with BLOWDOWN Technology and PSV Sizing in Aspen HYSYS
Learn how various simulator functionalities support the process safety using Aspen HYSYS (1 Day, Basic).
Prerequisites: None
Learning Outcomes:
- Use PRF Design & Rating.
- Use Blowdown Valve Design & Rating.

EHY121: Building MS Excel User Interfaces
Learn how to embed and link MS Excel using Aspen HYSYS (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.
- Link models to plant process data.

EHY150: Refinery Process Modeling using Aspen HYSYS and Aspen HYSYS Petroleum Refining
Learn how to embed and link MS Excel using Aspen HYSYS (1 Day, Basic).
Prerequisites: None
Learning Outcomes:
- 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.

EHY2314: Developing Dynamic Unit Operation Extensions for Aspen HYSYS using VB.NET
Learn VB.NET to implement Dynamic Unit Operation Extension model using Aspen HYSYS (1 Day, Basic).
Prerequisites: None
Learning Outcomes:
- 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.

EHY2511: Flare Network Design and Rating
Learn how to reduce capital cost and assure the safety of the plant using Aspen HYSYS (2 Days, Basic).
Prerequisites: None
Learning Outcomes:
- Identify potential process bottlenecks and validate the capacity of the flare network.

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.

EHY130: Modeling Liquefied Natural Gas Plant Using Aspen HYSYS - Upstream
Learn how to use Aspen HYSYS Upstream for Liquefied Natural Gas plant modeling (2 Days, Intermediate).
Prerequisites: Attended EHY101
Learning Outcomes:
- Build a Sulfur Recovery Unit.
- 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).
Prerequisites: Attended EHY101
Learning Outcomes:
- 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).
Prerequisites: Attended EHY101
Learning Outcomes:
- 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).
Prerequisites: Attended EHY121
Learning Outcomes:
- 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).
Prerequisites: Attended EHY101
Learning Outcomes:
- Discuss the industrial importance of accurate depressurizing simulations.
- Add BLOWDOWN analysis to an existing Aspen HYSY simulation.
- Perform design and rating calculations.

EHY251: Flare Network Design and Rating
Solve Complex problems using Aspen Flare System Analyzer (2 Days, Intermediate).
Prerequisites: None
Learning Outcomes:
- Summarize the capabilities and Aspen Flare System Analyzer.
- Perform process safety studies.

EHY252: Pressure Relief Analysis Using Aspen HYSYS
Learn how to define overpressure systems using Aspen HYSYS (1 Day, Intermediate).
Prerequisites: Attended EHY101
Learning Outcomes:
- Define overpressure systems using Aspen HYSYS in accordance with API 250, 251, 2000.
- Document the full overpressure analysis with Aspen HYSYS.

EHY2102: Aspen HYSYS Petroleum Refining: Process Modeling and Optimization for Refinery Unit Operations
Learn to build, evaluate, and optimize models using Aspen HYSYS Petroleum Refining (3 Days, Intermediate).
Prerequisites: Attended EHY101
Learning Outcomes:
- Summarize the capabilities of Aspen HYSYS and Activated Analysis tools.
- Integrate reactors with flowsheet: Reactors, Fluidized Catalytic Cracking (FCC) Reactor, Hydrocracker Reactor.
- Use Aspen PIMS.

EHY2311: Developing Automation Solutions for Aspen HYSYS

Use Visual Basic and Excel to create solutions for Aspen HYSYS simulation models (2 Days, Intermediate).
Prerequisites: Attended EHY101
Learning Outcomes:
- Describe capabilities of Aspen HYSYS and User Unit Operation.
- 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).
Prerequisites: Attended EHY2311
Learning Outcomes:
- 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).
Prerequisites: None
Learning Outcomes:
- 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).
Prerequisites: None
Learning Outcomes:
- 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:
- Use Aspen Exchanger Design & Rating and its integration with Aspen Plus Simulation Workbook.
- Explore the impact of changing operating conditions.
- Use Reboiler Wizard and its ability to simplify more detailed modeling of reboilers in Redraw 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
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 IQ model 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
Simulate and tune a nonlinear controller using Aspen Process Controller Builder (3 Days, Intermediate).
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.

APC601: Aspen DMC3 Jump Start Training Package (New)
Learn how to convert Aspen DMC to DMC3 (TBD Days, Intermediate)
Prerequisites: Attended APC105
Learning Outcomes:
- Convert Aspen DMC controller to DMC3 and configure Aspen DMC3 features
- Monitor the performance and benefits of converted Aspen DMC3 controller under the guidance of our experts
- Deploy and maintain Aspen DMC3 controllers
- Mentor others and propagate Aspen DMC3 competence throughout the company

MANUFACTURING EXECUTION SYSTEMS

MES021: Process Analysis Using aspenOne Process Explorer
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 tend 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 tend 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 Poser 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.

MES235: AspenOne Process Explorer: Aspen Real-Time SPC: Using and Configuring in aspenOne Process Explorer
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: Programing 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 InfoPus.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 Manger modules to create and track orders.
- Use the Production Execution Manager Web Server.

PLANNING AND SCHEDULING

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

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.

RPA201: Aspen PIMS: Solving Refinery Planning Problems
Learn how to model and interpret sophisticated plant relationships using Aspen PIMS (5 Days, Intermediate).
Prerequisites: Attended RPA101
Learning Outcomes:
- Implement real-world plant into your Aspen PIMS planning model.
- Identify & resolve problems that may hinder a planner's productivity.

Perform common economic evaluations.

RPA206: Multi-Period Refinery Modeling with Aspen PPIMS
Learn how to build and analyze a multi-period LP models using Aspen PIMS (2 Days, Intermediate)
Prerequisites: None
Learning Outcomes:
- Explain the differences between non-periodic and periodic models.
- Transfer inventory from period-to-period.
- Control blending recipes across multiple periods.

RPA207: Multiple Plant Planning with Aspen MPIMS Users
Learn how to use Aspen MPIMS to solve planning problems using Aspen MPIMS (2 Days, Intermediate).
Prerequisites: None
Learning Outcomes:
- Discuss how Aspen MPIMS is used to link multiple single plant Aspen PIMS models.
- Use various tables to evaluate models and transfer materials into local plants.
- Summarize global and local reports.

RPA208: Aspen PIMS platinum and Assay Manager for Experienced Aspen PIMS Users
Learn how to customize Aspen PIMS Platinum and modify assay data (1 Day, Intermediate).
Prerequisites: None
Learning Outcomes:
- Run a case using Aspen PIMS Platinum Case Runner.
- Execute a Spot Crude Evaluation using Aspen Assay Management.
- Modify assay data using Aspen Assay Management.

RPA221: Aspen PIMS: Advanced Optimization Features
Learn to troubleshoot solutions inherent to non-linear optimization problems (2 Days, Intermediate).
Prerequisites: Attended RPA101
Learning Outcomes:
- Execute different Global Optimization procedures.
- Set Up and run High Performance Computing architecture.
- Add and edit non-linear formulas to model.

RPA301: Aspen PIMS: Advanced Refinery Planning
Learn how to troubleshoot problems and use PIM's non-linear functionalities (5 Days, Advanced).
Prerequisites: Attended RPA201
Learning Outcomes:
- Model rigorous blending.
- Use non-linear functionalities.
- Perform Solution Analysis using Aspen PIMS-Advanced Optimization tool.

RBS101: Aspen Petroleum Scheduler: Using Models for Daily Scheduling
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.

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 Manger 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.

ASSET PERFORMANCE MANAGEMENT

AAA101: Monitor Distillation Column Operation to Predict and Prevent Failures
Learn to predict and prevent column failures using Aspen Column Analytic (1 Day, Basic).
Prerequisites: None.
Learning Outcomes:
- Model a C2 splitter.
- Perform Sizing and Rating Calculations for the C2 Splitter.
- Monitor and Protect a C2Splitter Column from Jet Flooding.

AAA102: Early Failure Detection using Pattern Matching, Root Cause Analysis and Empirical Modeling
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
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.