Interactive Training Course

dynamita
PROCESS MODELING

This six online session course can be taken in three different ways:

- Introductory – First four sessions (700 USD)
- Advanced – Last four sessions (800 USD)
- Complete – All six sessions (1000 USD)

Each session will be 4 hours, from 10 AM to 2 PM EDT

Includes

- A one-month Sumo21 license
- A one-month Digital Twin license

Register here, click on

- Introduction | Advanced | Complete

Program details

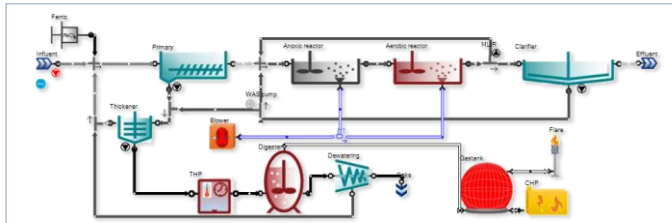
- next page

Contact

- web: www.dynamita.com
- for more information: info@dynamita.com

Modeling in Practice

in fundamentals and design applications



Name	Energy Center	Unit
Plant electric power demand	234	kW
CHP unit power generation	37	kW
Power demand purchase	197	kW
Electric energy purchase	102661	kWh
Self suffciency	16	%

Who will benefit?

New users/modelers should take the introductory part (first four sessions). Existing or experienced model users can start from session 3. All six can be taken for a complete overview of Sumo if desired

Software familiarization

- What's new in Sumo21
- Learn how to use basic and advanced features and build process configurations
- Dynamic simulation set-up, Data plotting, Scenario analysis

Full plant model calibration

- Wastewater characterization - Municipal and industrial, sludge feed, food waste
- Activated sludge and biofilm (including aerobic granular and MABR) systems
- BOD-removal/Nit-denit/Enhanced Biological Phosphorus removal/GHG model
- Predicting alpha factor for improved aeration design and modeling
- Modeling aerobic facultative lagoon (predict sludge buildup and dredging)
- Thermal hydrolysis, anaerobic digestion, and sidestream treatment
- Controllers: standard and ABAC, SRT control, AvN control, and NRCY control
- Energy/Cost module (Plant power demand, power generation, and self-sufficiency)

Digital Twin for Process Improvement

- Taking your model real time using our state-of-the-art OPC UI and other options

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Interactive Training Course

Time (EDT)	July 13th	July 15th	July 20th	July 22th	July 27th	July 29th
10:00 - 10:30	Personal introduction, program overview, and introduction to good modeling practice	Nitrification, denitrification	What's new Sumo21	Biological Phosphorus removal - model, application, and constraints	Sidestream treatment - deammonification	P recovery and precipitation (Sumo2S)
10:30 - 11:00						
11:00 - 11:30	Sumo21 - Setting up full plant for steady state and dynamic simulation	Modeling aerobic facultative lagoon (predict sludge buildup and dredging)	Chemical P - Iron and Alum	Controllers introduction, setup, and application	Complete energy and cost calculation - upgrade evaluation, self sufficiency	Carbon footprint and GHG estimation modeling
11:30 - 12:00						
12:00 - 12:30		Conventional versus Advanced digestion (Thermal hydrolysis), Post aerobic digestion	Aeration modeling - Diffuser versus mechanical, using aeration tool, alpha modeling			Introduction to Sumoslang - Biokinetic model, Plantwide, Process units
12:30 - 13:00	Wastewater characterization - data collection, reconciliation, and fractionation			Biofilm modeling - fundamentals and advanced setup	Pump and blower curve examples, sizing a blower	
13:00 - 13:30		Clarifier modeling				Digital twin - c-API, Python script, analysis, optimization, distributed and cloud runs
13:30 - 14:00						