

EnVision Simulations/Tutorials Offerings

| | Topic/Unit Operation | Simulation(s) | Tutorial(s) |
|----|---|---------------|-------------|
| 1 | Acetylene Converter | X | X |
| 2 | Alkylation, H2SO4 | X | X |
| 3 | Alkylation, HF | X | X |
| 4 | Amine Treating, Refining | X | X |
| 5 | Amine Treating, Midstream | X | |
| 6 | Blending, Gasoline | X | X |
| 7 | Blending, Gasoil | X | X |
| 8 | Boiler | | X |
| 9 | Boiler, Gas/Oil Fire | X | |
| 10 | Boiler, Gas Fired | X | |
| 11 | Boiler, Gas Fired-II | X | |
| 12 | Boiler, Cogen | X | |
| 13 | Compressor (Centrifugal) | X | X |
| 14 | Crude Distillation Unit (CDU) | | X |
| 15 | Crude Distillation, Atm. | X | |
| 16 | Crude Distillation, Atm-HiVac | X | |
| 17 | Crude Distillation, Atm-MildVac w/gas plant | X | |
| 18 | Crude Distillation, Atm-HiVac w/vac pump | X | |
| 19 | Delayed Coker | X | X |
| 20 | Distillation Unit | | X |
| 21 | Distillation, Depropanizer | X | |
| 22 | Distillation Methanol/Water | X | |
| 23 | Distillation, Ethanol/Water | X | |
| 24 | Distillation, Emergency Response Management | X | |
| 25 | Ethylene Heater (Tutorial) | | X |
| 26 | Ethylene Refrigeration (Sim) | X | |
| 27 | Fluidized Catalytic Cracker Unit (FCCU) | | X |
| 28 | FCC Complete Combustion | X | |
| 29 | FCC Complete Combustion with air lift | X | |
| 30 | FCC Partial Combustion | X | |
| 31 | FCC Partial Combustion with air lift | X | |
| 32 | FCC Partial Combustion with cat cooler | X | |
| 33 | Feed Gas Conditioning | X | X |
| 34 | Furnace | | X |
| 35 | Furnace Natural Draft, Gas/Oil | X | |
| 36 | Furnace Natural Draft, Gas | X | |
| 37 | Furnace Natural Draft Gas-II | X | |
| 38 | Furnace Balanced Draft, Gas | X | |
| 39 | Furnace Forced Draft, Gas | X | |
| 40 | Gas-Oil Separation (GOSP) | X | X |
| 41 | Glycol Dehydration (GDU) | | |
| 42 | Hydrodesulfurization HDS | | X |
| 43 | Hydrodesulfurization, Vac Drier | X | |
| 44 | Hydrodesulfurization, HP/LP Separators | X | |

| | | | |
|----|---|---|---|
| 45 | Hydrodesulfurization, Furnace Reboiler | X | |
| 46 | Hydrocracker Unit | | |
| 47 | Hydrogen Production (SMR) | X | X |
| 48 | Hydrogen Production, Methanator | X | X |
| 49 | Instrumentation (Tutorial) | | X |
| 50 | LNG Production (MCHE/SMR) | X | X |
| 51 | NGL Fractionation | X | |
| 52 | NGL Recovery | X | X |
| 53 | Process Controls-Basic (Tutorial) | | X |
| 54 | Process Controls-Adv (Tutorial) | | X |
| 55 | Process Fundamentals-Proc Control | | |
| 56 | Split Range Control | X | |
| 57 | Ratio & Cascade Control | X | |
| 58 | Feed Forward Control | X | |
| 59 | Override Control | X | |
| 60 | Process Fundamentals-I | | |
| 61 | Gas-Liquid Flow | X | |
| 62 | Pipe Flow Network | X | |
| 63 | Pumps and tank | X | |
| 64 | Single Phase Heat Exchanger | X | |
| 65 | Single Phase Heat Exchangers W/Bypass control | X | |
| 66 | Air Cooled Exchanger | X | |
| 67 | Tank, Pump with Heat Exchanger | X | |
| 68 | Process Fundamentals-II | | |
| 69 | Mixer with Heating Jacket | X | |
| 70 | Flash Drum | X | |
| 71 | Kettle Type Reboiler w/ Heat Exchanger | X | |
| 72 | Condensing Heat Exchanger | X | |
| 73 | Centrifugal Compressor | X | |
| 74 | Reciprocating Compressor | X | |
| 75 | Steam Turbine with Condenser | X | |
| 76 | Cooling Tower System | X | |
| 77 | Three Phase Separator | X | |
| 78 | Process Fundamentals (Tutorial) | | X |
| 79 | Proc Fund-III Liq-Liq Extraction | X | |
| 80 | Proc Fund-III CSTR | X | |
| 81 | Proc Fund-III Tank Terminal | X | |
| 82 | Propane Refrigeration | X | X |
| 83 | Pump (Tutorial) | | X |
| 84 | Reformer (Crude Reforming) Continuous | X | X |
| 85 | Reformer, Semi-Continuous/Fixed Bed | X | X |
| 86 | Sulfur Recovery Unit | | |
| 87 | Sulfur Recovery (Claus) | X | X |
| 88 | Sulfur Recovery (TGTU) | X | X |
| 89 | Sulfur Recovery (Claus w/ TGTU) (Sim) | X | |
| 90 | Vacuum Distillation (VDU) | X | |
| 91 | Visbreaker | X | X |

Simulation Units of Measure

- a) Generally available in British Units (e.g., Deg F, psig)
- b) Generally available in Metric/European Units (e.g., Deg C, Bar)
- c) Some available in System International units (e.g., Deg C, kPa)

Simulation Languages

- a) All available in English
- b) Many available in Dutch, German, Spanish
- c) Some available in Danish, French, Chinese

Tutorial Languages

- a) All available in English
- b) Many available in Dutch, German, Spanish
- c) Some available in Danish, French, Swedish

EnVision-On-Demand Structured Courseware

| | Course Name | Included Open Access Sims | Included Open Access Tutorials |
|----|--|---------------------------------|--------------------------------|
| 1 | Binary Distillation | Distillation methanol-water | Distillation |
| 2 | Compressor Basics | 2 Proc Fund-II sims | Compressor |
| 3 | Compressor Intermediate | 2 Proc Fund-II sims, Compressor | Compressor |
| 4 | Compressor Advanced | Compressor | Compressor |
| 5 | Distillation Components | 3 Proc Fund-II sims | |
| 6 | Furnace – Balanced Draft | Furnace (BD-Gas) | Furnace |
| 7 | Furnace – Forced Draft | Furnace (BD-Gas) | Furnace |
| 8 | Furnace – Natural Draft | Furnace (ND-Gas-II) | Furnace |
| 9 | GOSP level 1 (Basics) | 1 Proc Fund-II sim, GOSP | GOSP |
| 10 | GOSP level 2 (Advanced) | GOSP | GOSP |
| 11 | Process Control Fundamentals | All 4 Proc Fund-Proc Ctl | Proc Ctl Basic, Proc Ctl Adv |
| 12 | Process Fundamentals I – Course I | 2 Proc Fund-I sims | |
| 13 | Process Fundamentals I – Course II | 3 Proc Fund-I sims | |
| 14 | Process Fundamentals I – Course III | 2 Proc Fund-I sims | |
| 15 | Process Fundamentals II – Cent Compressor | 1 Proc Fund-II sim | |
| 16 | Process Fundamentals II – Recip Compressor | 1 Proc Fund-II sim | |
| 17 | Process Fundamentals II – Steam Turbine | 1 Proc Fund-II sim | |
| 18 | Process Fundamentals II – Three Phase Sep | 1 Proc Fund-II sim | |