

## Track 1: Well Site Supervisor Development Program



### ABOUT THIS PROGRAM

PetroSkills is pleased to provide the Well Site Supervisor Development Program. This program is designed to develop your employees into the functional role of a Well Site Supervisor. By combining self-paced online activities with live virtual instruction and practical workshop application, this program equips your employees to be revenue generating team leaders at the well site. Using PetroSkills' PetroAcademy application and/or delivered real-time virtual sessions, this program gives you the confidence that your employees are being developed using proven industry-validated competencies for this critical role.

Unit	Track 1: Well Site Supervisors*
1	Well Construction Foundations
2	Descriptive Formation Fundamentals
3	Onsite Fluids Management
4	Casing and Cementing Operations
5	Directional/Horizontal Drilling Operations
6	Drilling Optimization Operations
7	Initial Completions and Well Testing Operations
8	Interventions Operations
9	Managing Wellsite Operations
10	Crew Resource Management
11	The Reduction of Unplanned Events Operations
12	Basic Petroleum Economics
13	Project Management for Upstream Field Development
14	Comprehensive Review, Capstone Exercise & Testing

\*A more detailed program outline is included at the end of this document.

- Approximately 400 total hours of program work over a period of 12 months (recommended to provide Rig Time between units)
- Pre-test option allows learner to test out of what they know
- Self-paced modules provide flexibility to learners
- Live instructor-led virtual sessions and office hours provide opportunities to engage with the expert
- Assumption is that participants are on the rig when they are not taking the modules

### DESIGNED FOR

- Field supervisors and junior field supervisors who are being developed to be well site supervisors
- Entry-level well site field personnel
- Experienced personnel who are cross-training to move into a supervisory role leading operations at the well site

### PROGRAM INSTRUCTORS

The following PetroSkills world-class facilitators in well construction and drilling will teach this program:

**James Bobo**  
**Kevin Cuyler**  
**Stan Atnipp**  
**Mason Gomez**  
**Charlie Holt**  
**Kent Saugier**  
**Ken Lunsford**

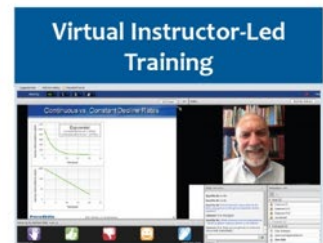
For more information on these instructors, please visit:  
[www.petroskills.com/instructors](http://www.petroskills.com/instructors)



### ABOUT PETROACADEMY™

PetroAcademy combines PetroSkills industry knowledge, expertise, content, and technology to develop workforce competency. Each PetroAcademy offering integrates multiple learning activities, such as reading assignments, self-paced e-Learning, virtual instructor-led sessions, discussion forums, group exercises, case studies, quizzes, field trips, and experiential activities. This combination of activities serves to increase knowledge retention. PetroAcademy further optimizes time away from work while incurring no travel expense.

### Program Overview



For further information, please visit: [www.petroskills.com/blended](http://www.petroskills.com/blended)

Track 1: Well Site Supervisor Development Program

Month	Unit 1: Well Construction Foundations	Duration	Delivery Format
Month 1	E&P Industry and Asset Life Cycle	4 hrs	Online Activity
	Petroleum Geology Core	2.5 hrs	Online Activity
	Hydrocarbon Reservoirs Core	2 hrs	Online Activity
	Rock and Fluid Properties Core	3.5 hrs	Online Activity
	Track One Overview-Detailed Participant Intro	4 hrs	Instructor-led (Virtual or F2F)
	Surface/Subsurface Exploration Core	3 hrs	Online Activity
	Drilling Operations and Well Completions Core	3 hrs	Online Activity
	Defining Well Objectives Core	1 hr	Online Activity
	Production Principles Core	4.5 hrs	Online Activity
	Office Hours – Q&A	2 hrs	Instructor-led (Virtual or F2F)
	Drilling Rig Crews Online Learning	0.5 hrs	Online Activity
	Prepare to Spud – Operational Readiness Online Learning	0.5 hrs	Online Activity
	Back to Work Plan Discussion	1 hr	Instructor-led (Virtual or F2F)
	Unit 1 Recap	2 hrs	Instructor-led (Virtual or F2F)
	Post-Assessment Unit One	2 hrs	Online Activity
	<b>Unit 2: Descriptive Formation Fundamentals</b>	<b>Duration</b>	<b>Delivery Format</b>
	Introduction and Overview of Petrophysics Core	5 hrs	Online Activity
	Mud Logging, Coring, and Cased Hole Logging Operations Core	4.5 hrs	Online Activity
Porosity Logging (Density, Neutron, and Sonic) Core	5.5 hrs	Online Activity	
Office Hours – Q&A	2 hrs	Instructor-led (Virtual or F2F)	
Gamma Ray and Spontaneous Potential Logging Core	2.5 hrs	Instructor-led (Virtual or F2F)	
Resistivity Logging Tools and Interpretation Core	3.5 hrs	Online Activity	
Special Petrophysical Tools: NMR and Image Logs Core	2 hrs	Online Activity	
Office Hours – Q&A	4 hrs	Instructor-led (Virtual or F2F)	
Month 2	Back to Work Plan Discussion	1 hr	Instructor-led (Virtual or F2F)
	Unit 2 Recap	2 hrs	Instructor-led (Virtual or F2F)
	Post-Assessment Unit 2	2 hrs	Online Activity
	<b>Unit 3: Onsite Fluids Management</b>	<b>Duration</b>	<b>Delivery Format</b>
	Drilling Fluid Objectives and Functions	0.5 hrs	Online Activity
	Drilling Fluid Types, Additives and Properties	1 hr	Online Activity
	Volumetric Accountability with Drilling Fluids	1 hr	Online Activity
	Fluid Chemical Properties and Measurements	2.5 hrs	Instructor-led (Virtual or F2F)
	WBM Build Scenarios (Calculations) w/ Exercises	2 hrs	Instructor-led (Virtual or F2F)
	Fluids Processing / Solids Control	0.5 hrs	Instructor-led (Virtual or F2F)
Solids Analysis of a Drilling Fluid (Tree)	0.5 hrs		
Shaker Screen Nomenclature and labeling	0.5 hrs		
WBM Contaminations	1.5 hrs		
Month 3	Electrical Stability Unit	0.25 hrs	Online Activity
	Non-Aqueous Fluids	2 hrs	Instructor-led (Virtual or F2F)
	Drilling Fluid Reports	1.5 hrs	

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	Waste Management	2 hrs	Instructor-led (Virtual or F2F)
	Lost Circulation	2 hrs	
	Drilling Fluid Impacts on the Technical Limit	1.5 hrs	Instructor-led (Virtual or F2F)
	Back to Work Plan Discussion	2 hrs	
	Unit 3 Recap	4 hrs	Instructor-led (Virtual or F2F)
	Post-Assessment Unit 3	2 hrs	Online Activity
	<b>Unit 4: Casing and Cementing Operations</b>	<b>Duration</b>	<b>Delivery Format</b>
	Characterizing the Drilling Environment Core	3.75 hrs	Online Activity
	Primary and Remedial Cementing Core	5 hrs	Online Activity
	Oilfield Casing Core	2.25 hrs	Online Activity
	Casing Running Operations Core	3.75 hrs	Online Activity
	Wellheads and Christmas Trees	0.5 hrs	Online Activity
	All About Casing	4 hrs	Instructor-led (Virtual or F2F)
	Wellhead Equipment, Casing Connections and Intro to Primary Cementing	4 hrs	Instructor-led (Virtual or F2F)
	Cement Calculations and Channeling	4 hrs	Instructor-led (Virtual or F2F)
	Cement Casing Attachments	4 hrs	Instructor-led (Virtual or F2F)
	Cement Considerations and Design	2 hrs	Instructor-led (Virtual or F2F)
Month 4	Wellheads, Unit 4 Recap and BTW Plan Discussion	2 hrs	
	Post-Assessment Unit 4	2 hrs	Online Activity
	<b>Unit 5: Directional/Horizontal Drilling Operations</b>	<b>Duration</b>	<b>Delivery Format</b>
	Directional Drilling and Trajectory Design Core	2.5 hrs	Online Activity
	Introduction, Planning	4 hrs	Instructor-led (Virtual or F2F)
	Geosteering, Survey Instruments	4 hrs	Instructor-led (Virtual or F2F)
	Types of Curves, Hole Clearing	4 hrs	Instructor-led (Virtual or F2F)
	Torque and Drag, Dogleg Severity, Methods of Deflection	4 hrs	Instructor-led (Virtual or F2F)
	Misc. & Unit 5 Recap	2 hrs	Instructor-led (Virtual or F2F)
	Back to Work Plan Discussion	2 hrs	
Month 5	Post-Assessment Unit 5	2 hrs	Online Activity
	<b>Unit 6: Drilling Optimization Operations</b>	<b>Duration</b>	<b>Delivery Format</b>
	Bits and Hydraulics Core	3.5 hrs	Online Activity
	Drill String and BHA Core	3 hrs	Online Activity
	Wellbore Drilling Excellence Fundamentals	4 hrs	Instructor-led (Virtual or F2F)
	Wellbore Limiters Case Studies	4 hrs	Instructor-led (Virtual or F2F)
	Bits and BHA	4 hrs	Instructor-led (Virtual or F2F)
	Introduction to Drillstring Design for Field Use	4 hrs	Instructor-led (Virtual or F2F)
	Pressure Management, Hydraulic Hole Cleaning and MSE	4 hrs	Instructor-led (Virtual or F2F)
Month 6	Back to Work Plan Discussion	2 hrs	Instructor-led (Virtual or F2F)
	Unit 6 Recap (Assure Wellbore Drilling Optimization (loss avoidance) and Sustainable Learning)	2 hrs	Instructor-led (Virtual or F2F)
	Post-Assessment Unit 6	2 hrs	Online Activity
	<b>Unit 7: Initial Completions and Well Testing Operations</b>	<b>Duration</b>	<b>Delivery Format</b>
	Design Process for Completions and Workovers Core	3.5 hrs	Online Activity

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	Onshore Conventional Completions Core	4 hrs	Online Activity
	Onshore Unconventional Core	3.5 hrs	Online Activity
	Office Hours – Q&A	1 hr	Instructor-led (Virtual or F2F)
	Perforating Core	3.5 hrs	Online Activity
	Formation Damage and Matrix Acidizing Core	3 hrs	Online Activity
	Office Hours – Q&A	2 hrs	Instructor-led (Virtual or F2F)
	Sand Control Core	2.5 hrs	Online Activity
	Hydraulic Fracturing Core	4 hrs	Online Activity
	Office Hours – Q&A	2 hrs	Instructor-led (Virtual or F2F)
	Well Testing	3 hrs	Instructor-led (Virtual or F2F)
	Back to Work Plan Discussion	2 hrs	Instructor-led (Virtual or F2F)
	Unit 7 Recap	2 hrs	Instructor-led (Virtual or F2F)
	Post-Assessment Unit 7	2 hrs	Online Activity
Month 7	<b>Unit 8: Interventions Operations</b>	<b>Duration</b>	<b>Delivery Format</b>
	Well Intervention Core	3 hrs	Online Activity
	Flow Assurance and Production Chemistry Core	5 hrs	Online Activity
	Office Hours – Q&A	2 hrs	Instructor-led (Virtual or F2F)
	Production Logging Core	3 hrs	Online Activity
	Office Hours – Q&A	1 hr	Instructor-led (Virtual or F2F)
	Casing Side Tracks & Abandonment	4 hr	Instructor-led (Virtual or F2F)
	Remedial Cementing Troubleshooting Examples	3 hrs	Instructor-led (Virtual or F2F)
	Back to Work Plan Discussion	2 hrs	Instructor-led (Virtual or F2F)
	Unit 8 Recap	2 hrs	Instructor-led (Virtual or F2F)
	Post-Assessment Unit 8	2 hrs	Online Activity
	<b>Unit 9: Managing Wellsite Operations</b>	<b>Duration</b>	<b>Delivery Format</b>
	Well Construction Supply Chain Management Core	2.5 hrs	Online Activity
	Well Site Management Part 1 – Logistics, Communication and Safety Core	3 hrs	Online Activity
	Well Site Management Part 2 – Planning, Operations and Continuous Improvement Core	3.5 hrs	Online Activity
	Office Hours – Q&A	2 hrs	Instructor-led (Virtual or F2F)
Competency Development, Interpersonal Communications	2 hrs	Instructor-led (Virtual or F2F)	
Month 8	Time Management	4 hrs	Instructor-led (Virtual or F2F)
	Problem Solving Facilitation	4 hrs	Instructor-led (Virtual or F2F)
	Process Improvement	4 hrs	Instructor-led (Virtual or F2F)
	Back to Work Plan Discussion	2 hrs	Instructor-led (Virtual or F2F)
	Unit 9 Recap	2 hrs	Instructor-led (Virtual or F2F)
	Post-Assessment Unit 9	2 hrs	Online Activity
	<b>Unit 10: Crew Resource Management</b>	<b>Duration</b>	<b>Delivery Format</b>
	Factors that Effect Human Performance, Crew Resource Management	3 hrs	Instructor-led (Virtual or F2F)
	Situation Awareness and Decision Making	3 hrs	Instructor-led (Virtual or F2F)
	Effective Communications and Teamwork	3 hrs	Instructor-led (Virtual or F2F)
Factors that Impact Human Performance	3 hrs	Instructor-led (Virtual or F2F)	

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Month 9	Leadership	3 hrs	Instructor-led (Virtual or F2F)
	Observations and Intervention	3 hrs	Instructor-led (Virtual or F2F)
	Back to Work Plan Discussion	2 hrs	Instructor-led (Virtual or F2F)
	Unit 10 Recap	2 hrs	
	Post-Assessment Unit 10	2 hrs	Online Activity
	<b>Unit 11: The Reduction of Unplanned Events Operations</b>	<b>Duration</b>	<b>Delivery Format</b>
	Well Performance Management Core	4 hrs	Online Activity
	Stuck Pipe Prevention Core	4 hrs	Online Activity
	Office Hours – Q&A	2 hrs	Instructor-led (Virtual or F2F)
	Selected Readings TRUE book	4 hrs	Online Activity
	Reduction of Unscheduled Events, such as Stuck Pipe, Lost Circulation	4 hrs	Instructor-led (Virtual or F2F)
	Rig Repair, Downhole Equipment Failure, Drill String Failure, Drilling Jars and Investigation Reporting	4 hrs	Instructor-led (Virtual or F2F)
	Back to Work Plan Discussion	2 hrs	Instructor-led (Virtual or F2F)
	Unit 11 Recap	2 hrs	
Post-Assessment Unit 11	2 hrs	Online Activity	
Month 10	<b>Unit 12: Basic Petroleum Economics</b>	<b>Duration</b>	<b>Delivery Format</b>
	Production Forecasting	4 hrs	Online Activity
	Oil and Gas Pricing	4 hrs	Online Activity
	Office Hours – Q&A	1 hr	Instructor-led (Virtual or F2F)
	Cash Flow	4 hrs	Online Activity
	Economic Decision Tools	4 hrs	Online Activity
	Office Hours – Q&A	1 hr	Instructor-led (Virtual or F2F)
	Risk and Uncertainty	4 hrs	Online Activity
	Financing and Ownership	4 hrs	Online Activity
	Office Hours – Q&A	1 hr	Instructor-led (Virtual or F2F)
	Petroleum Industry Accounting	4 hrs	Online Activity
	Budgeting	4 hrs	Online Activity
	Office Hours – Q&A	1 hr	Instructor-led (Virtual or F2F)
	Back to Work Plan Discussion	2 hrs	Instructor-led (Virtual or F2F)
	Unit 12 Recap	2 hrs	
	Post-Assessment Unit 12	2 hrs	Online Activity
	<b>Unit 13: Project Management for Upstream Field Development</b>	<b>Duration</b>	<b>Delivery Format</b>
	Onshore Field Development Programs and Projects Core	3 hrs	Online Activity
	Project Governance Core	3 hrs	Online Activity
	Office Hours – Q&A	1 hr	Instructor-led (Virtual or F2F)
	Project Resources and Organization Core	4 hrs	Online Activity
Scope Delivery Core	4 hrs	Online Activity	
Office Hours – Q&A	1 hr	Instructor-led (Virtual or F2F)	
Design Engineering Management Core	3 hrs	Online Activity	
Acquiring Goods and Services Core	4 hrs	Online Activity	
Office Hours – Q&A	1 hr	Instructor-led (Virtual or F2F)	

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Month 11	Construction Management Core	4 hrs	Online Activity	
	Risk Management Core	4 hrs	Online Activity	
	Office Hours – Q&A	1 hr	Instructor-led (Virtual or F2F)	
	Cost Estimating for Facility Projects Core	4 hrs	Online Activity	
	Scheduling Core	2.5 hrs	Online Activity	
	Office Hours – Q&A	1 hr	Instructor-led (Virtual or F2F)	
	Progress Measurement Core	4 hrs	Online Activity	
	Project Issues and Challenges	3 hrs	Instructor-led (Virtual or F2F)	
	Project Issues and Challenges Cont'd	5 hrs	Instructor-led (Virtual or F2F)	
	Back to Work Plan Discussion	2 hrs	Instructor-led (Virtual or F2F)	
	Unit 13 Recap	2 hrs	Instructor-led (Virtual or F2F)	
	Post-Assessment Unit 13	2 hrs	Online Activity	
	<b>Unit 14: Comprehensive Review, Capstone Exercise &amp; Testing</b>			
	Best of the Best Total Well: Participants bring their own well data- Min of 3–4 wells	3 hrs	Exercise— Instructor-led (Virtual or F2F)	
Nonproductive time	1 hr	Instructor-led (Virtual or F2F)		
Review Units 3, 5, 6	1.5 hrs	Instructor-led (Virtual or F2F)		
Identify non-productive time on participant wells	3 hrs	Exercise— Instructor-led (Virtual or F2F)		
Plateau time	1 hr	Instructor-led (Virtual or F2F)		
Review Unit 4	1.5 hrs	Instructor-led (Virtual or F2F)		
Plateau time on participant wells	3 hrs	Exercise— Instructor-led (Virtual or F2F)		
Month 12	Invisible Loss Time	1 hr	Instructor-led (Virtual or F2F)	
	Review Unit 7, 8	2 hrs	Instructor-led (Virtual or F2F)	
	Perfect Well Exercise Program Review	3 hrs	Instructor-led (Virtual or F2F)	
	Final Exam	8 hrs	Online Activity	
<b>Final Exam: An 8-hour test that involves applications and calculations can be developed at the end of the site supervision training milestone and a separate test can be developed at the end of the Well Planning training milestone</b>				