AMERICAN GLOBAL INSTITUTE
FOR PRIVATE TRAINING

External Training Course

Cementation, Well Integrity & Plug & Abandonment (P&A) for Modern Drilling

---

From 24 Nov. To 28 Nov. 2025
From 08 Dec. To 12 Dec. 2025
From 12 Jan. To 16 Jan. 2026

Radisson Blu Hotel, Amsterdam City Center, Netherlands

Mr. Ghanem F. Al-Otaibi
GM & Institute Owner
Tel.: 00965 22248901 **Fax: 00965 22204999**
Mob.: 00965 65548855 **Mob.: 00965 97273712**
Email: admin@agi-kw.com **Email: agi-kw@hotmail.com**
W/SITE: WWW.AGI-KW.COM

American Global
Institute For Private Training

Tel. 00965 - 22248901
Mob. 00965 - 65548855
Email admin@agi-kw.com
W/Site www.agi-kw.com

External Training Course:

Cementation, Well Integrity & Plug & Abandonment (P&A) for Modern Drilling

From 24 Nov. To 28 Nov. 2025 Fees: 1850 KD
From 08 Dec. To 12 Dec. 2025 Fees: 1850 KD
From 12 Jan. To 16 Jan. 2026 Fees: 1850 KD

Course Overview:

This intensive 5-day training equips drilling professionals with the knowledge and skills required for modern well construction, cementation, well integrity management, and plug & abandonment operations. Participants will gain hands-on experience with real-world scenarios, modern technologies, and industry best practices to ensure safe, efficient, and cost-effective drilling operations.

Course Objectives:

By the end of this course, participants will be able to:

- Understand drilling well design and the role of cementing in well integrity.
- Optimize cement slurry design for various well conditions.
- Apply advanced cementing techniques, including remedial and squeeze jobs.
- Evaluate and maintain well integrity throughout the well lifecycle.
- Plan and execute P&A operations safely and efficiently.
- Use modern software tools for cementing design, monitoring, and P&A planning.
- Learn from real-world case studies to prevent operational failures.
- Align operational practices with regulatory and environmental standards.

Target Audience:

Drilling Engineers & Completion Engineers.
Wellsite Supervisors & Field Engineers.
HSE and Risk Management Professionals.
Reservoir Engineers involved in well planning.
Service Company Personnel in cementing, well integrity, and P&A operations.
Technical Managers overseeing well construction and abandonment.

Training Methodology:

Interactive lectures with real-life examples.
Hands-on workshops and cementing simulations.
Group exercises in well integrity risk assessment.
Case studies of successful and failed cementing and P&A operations.
Software tools demonstrations for cement slurry design and P&A planning.
Knowledge quizzes and discussion sessions.

Organizational Impact:

Minimize non-productive time (NPT) through optimized cementing and P&A.

Enhance well integrity, reducing environmental and safety risks.

Increase operational efficiency and reduce costs in well lifecycle management.

Improve compliance with international regulations and standards.

Foster knowledge transfer and continuous professional development.

Personal Impact:

Master advanced techniques in cementing, well integrity, and P&A.

Develop critical problem-solving skills in well operations.

Gain confidence in planning and executing high-risk operations.

Enhance professional credibility and career advancement potential.

Build a foundation for adopting modern drilling technologies.

Course Content & Outline:

Day 1: Fundamentals of Cementation & Well Integrity

- Introduction to drilling operations and well construction stages.
- Role of cement in well integrity and zonal isolation.
- Types of cement and additives (lightweight, retarders, accelerators).
- Cement slurry design fundamentals (density, rheology, thickening time).
- Casing and wellbore design considerations.
- Common cementing equipment and their functions (pumpers, plug launchers).
- Well integrity basics: barriers, casing, and formation evaluation.
- Introduction to well logging for cement evaluation (CBL, cement evaluation logs).

Day 2: Advanced Cementing Techniques & Design

- Design considerations for primary and remedial cementing jobs.
- Squeeze cementing: techniques, planning, and execution.
- Plug cementing and zonal isolation methods.
- Cementing under challenging conditions: HPHT, deepwater, depleted formations.
- Cement bond evaluation tools and interpretation.
- Troubleshooting common cementing problems: channeling, gas migration, poor bonding.
- Risk management in cementing operations.
- Software-assisted cement slurry design and simulation.

Day 3: Well Integrity Management

- Principles of well integrity management throughout the well lifecycle.
- Mechanical integrity: casing, tubing, and wellhead assessment.
- Corrosion, erosion, and fatigue monitoring in wells.
- Risk-based inspection (RBI) and integrity assessment methodologies.
- Identifying integrity failure modes and preventive measures.
- Regulatory and industry standards (API, ISO, NORSOK).
- Documentation and reporting of well integrity activities.
- Case studies on well integrity failures and lessons learned.

Day 4: Plug & Abandonment (P&A) Operations

- P&A planning: engineering, environmental, and regulatory considerations.
- Types of plugs and materials used in P&A (cement, mechanical plugs).
- Step-by-step P&A execution: setting plugs, wellbore cleaning, pressure testing.
- Verification of plug integrity and abandonment confirmation.
- Managing risks during P&A operations (pressure, HSE, environmental).
- Cost-effective P&A strategies without compromising safety.
- Field tools and equipment for successful P&A operations.
- Case studies: successful P&A operations and lessons learned.

Day 5: Integrated Case Studies & Modern Practices

- Integration of cementing, well integrity, and P&A in well lifecycle management.
- Problem-solving exercises based on real-world drilling scenarios.
- Modern technologies for monitoring well integrity and P&A (software, sensors, predictive tools).
- Evaluating and optimizing cementing and P&A operations using simulations.
- Group discussions and practical workshops on decision-making and risk management.
- Course review and Q&A session.
- Knowledge assessment, feedback, and certification.

Course Agenda:

(1st Day) Agenda

8.30	9.00	Opening Remarks (30 Min.).
9.00	11.30	Discuss the main points of the training course: • Fundamentals of Cementation & Well Integrity. • Advanced Cementing Techniques & Design. • Well Integrity Management. • Plug & Abandonment (P&A) Operations. • Integrated Case Studies & Modern Practices.
11.30	12.00	Coffee Break
12.00	14.00	Fundamentals of Cementation & Well Integrity: • Introduction to drilling operations and well construction stages. • Role of cement in well integrity and zonal isolation. • Types of cement and additives (lightweight, retarders, accelerators). • Cement slurry design fundamentals (density, rheology, thickening time). • Casing and wellbore design considerations. • Common cementing equipment and their functions (pumpers, plug launchers). • Well integrity basics: barriers, casing, and formation evaluation. • Introduction to well logging for cement evaluation (CBL, cement evaluation logs).
14.00	14.30	Questions and Discussion
14.30		Buffet Lunch

(2nd Day) Agenda

9.00	11.30	Advanced Cementing Techniques & Design: • Design considerations for primary and remedial cementing jobs. • Squeeze cementing: techniques, planning, and execution. • Plug cementing and zonal isolation methods. • Cementing under challenging conditions: HPHT, deepwater, depleted formations.
11.30	12.00	Coffee Break
12.00	14.00	Advanced Cementing Techniques & Design: • Cement bond evaluation tools and interpretation. • Troubleshooting common cementing problems: channeling, gas migration, poor bonding. • Risk management in cementing operations. • Software-assisted cement slurry design and simulation.
14.00	14.30	Questions and Discussion
14.30		Buffet Lunch

(3rd Day) Agenda

9.00	11.30	Well Integrity Management: • Principles of well integrity management throughout the well lifecycle. • Mechanical integrity: casing, tubing, and wellhead assessment. • Corrosion, erosion, and fatigue monitoring in wells. • Risk-based inspection (RBI) and integrity assessment methodologies.
11.30	12.00	Coffee Break
12.00	14.00	Well Integrity Management: • Identifying integrity failure modes and preventive measures. • Regulatory and industry standards (API, ISO, NORSOK). • Documentation and reporting of well integrity activities. • Case studies on well integrity failures and lessons learned.
14.00	14.30	Questions and Discussion
14.30		Buffet Lunch

(4th Day) Agenda

9.00	11.30	Plug & Abandonment (P&A) Operations: • P&A planning: engineering, environmental, and regulatory considerations. • Types of plugs and materials used in P&A (cement, mechanical plugs). • Step-by-step P&A execution: setting plugs, wellbore cleaning, pressure testing. • Verification of plug integrity and abandonment confirmation.
11.30	12.00	Coffee Break
12.00	14.00	Plug & Abandonment (P&A) Operations: • Managing risks during P&A operations (pressure, HSE, environmental). • Cost-effective P&A strategies without compromising safety. • Field tools and equipment for successful P&A operations. • Case studies: successful P&A operations and lessons learned.
14.00	14.30	Questions and Discussion
14.30		Buffet Lunch

(5th Day) Agenda

9.00	11.30	Integrated Case Studies & Modern Practices: • Integration of cementing, well integrity, and P&A in well lifecycle management. • Problem-solving exercises based on real-world drilling scenarios. • Modern technologies for monitoring well integrity and P&A (software, sensors, predictive tools).
11.30	12.00	Coffee Break
12.00	14.00	Integrated Case Studies & Modern Practices: • Evaluating and optimizing cementing and P&A operations using simulations. • Group discussions and practical workshops on decision-making and risk management. • Course review and Q&A session. • Knowledge assessment, feedback, and certification.
14.00	14.30	Questions and Discussion
14.30		Buffet Lunch