MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

PRODUCTION SYSTEMS FOR HPHT WELLS – DESIGN AND OPERATION

"Engineering Reliable and Safe Production Systems for High-Pressure High-Temperature Wells"

Schedule

Date	Venue	Fees (Online)
17 – 18 Jun 2026	Online	USD 700 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

High-Pressure High-Temperature (HPHT) wells present unique technical, operational, and safety challenges that require specialized knowledge and robust engineering solutions. Designing and operating production systems in HPHT environments demands a deep understanding of materials, equipment integrity, flow assurance, and risk mitigation strategies.

This intensive 2-day course provides participants with a practical and technical understanding of HPHT production systems, covering design considerations, equipment selection, operational challenges, and lifecycle management. The training blends engineering theory with real-world field examples to ensure safe, efficient, and reliable HPHT well production.

Objectives

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

- Understand the defining characteristics and challenges of HPHT wells
- Design production systems suitable for extreme pressure and temperature conditions
- Select appropriate materials and equipment for HPHT applications
- Identify integrity, safety, and flow assurance challenges in HPHT production
- Apply best practices for operating and maintaining HPHT production systems
- Mitigate risks associated with HPHT well operations

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Why Attend

- Gain specialized knowledge in HPHT production system design
- Learn industry best practices for safe HPHT well operations
- Understand failure mechanisms and integrity management
- Improve operational decision-making in extreme environments
- Enhance technical competency in advanced well production engineering

Target Audience

This program is designed for:

- Production engineers and petroleum engineers
- Well completion and well integrity engineers
- Drilling and operations engineers involved in HPHT projects
- Field supervisors and technical specialists
- Asset and facilities engineers supporting HPHT developments

Individual Benefits

Key competencies that will be developed include:

- Technical understanding of HPHT well production challenges
- Ability to design and evaluate HPHT production systems
- Improved equipment selection and material specification skills
- Enhanced risk assessment and integrity management capabilities
- Practical insights into HPHT operational best practices

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved safety and reliability of HPHT well operations
- Reduced risk of equipment failure and unplanned shutdowns
- Enhanced lifecycle management of HPHT production assets
- Better compliance with industry standards and regulations
- Increased operational efficiency in extreme well environments

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings – Technical overview of HPHT well environments and production system design principles
- Case Studies – Real-world HPHT well production challenges and solutions
- Workshops – Design exercises for tubing, wellheads, and completion systems
- Peer Exchange – Interactive discussions on operational experiences and lessons learned
- Tools – Engineering checklists, design guidelines, and operational best practices

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Course Outline

Detailed 2-Day Course Outline

Training Hours: 7:30 AM – 3:30 PM Daily Format: 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Break: 01:00 – 02:00

Day 1: HPHT Wells and Production System Design

Module 1: Introduction to HPHT Wells (07:30 – 09:30)

- Definition and classification of HPHT wells
- Reservoir and well conditions in HPHT environments
- Key technical and operational challenges

Module 2: HPHT Production System Components (09:45 – 11:15)

- Tubing, wellheads, trees, and completion equipment
- Material selection and metallurgy considerations
- Pressure and temperature rating requirements

Module 3: Design Considerations and Integrity Management (11:30 – 01:00)

- Load cases and design envelopes
- Thermal effects and pressure cycling
- Well integrity and barrier philosophy

Module 4: Operational Challenges and Risk Mitigation (02:00 – 03:30)

- Start-up, shut-down, and transient operations
- Failure modes and mitigation strategies
- Monitoring and integrity assurance practices

Day 2: Operation, Safety, and Best Practices

Module 5: HPHT Production Operations (07:30 – 09:30)

- Production optimization in HPHT wells
- Flow assurance challenges (hydrate, scale, corrosion)
- Surveillance and monitoring techniques

Module 6: Safety and Regulatory Considerations (09:45 – 11:15)

- HPHT safety risks and controls
- Industry standards and regulatory requirements
- Emergency response and contingency planning

Module 7: Case Studies and Lessons Learned (11:30 – 01:00)

- Review of global HPHT field experiences
- Analysis of failures and success stories

Module 8: Best Practices and Course Wrap-Up (02:00 – 03:30)

- Key takeaways and implementation strategies
- Q&A and knowledge consolidation

Certification

Participants will receive a Certificate of Completion in Production Systems for HPHT Wells—Design and Operation, validating their technical competence in designing, operating, and managing production systems for high-pressure, high-temperature wells.

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Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
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