e-Learning and Knowledge Solutions

The New IPIMS

A Three-Phase Master Plan to Enhance the IPIMS User Experience @ www.ipims.com
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The New IPIMS Development Plan

Overview

In 2014 IHRDC set in motion a master, three-phase IPIMS development plan, identified below in terms of scope and timing, that would provide immediate improvements to the user experience and thoroughly renew content and interactivity in all four of its major disciplines.

Phase 1 – Access: Improve Hardware, Interface & Video Quality
(Q2 2015)

Phase 2 – Knowledge: Update Content and Improve Graphics
(Q2 2014 – 2019+)

Phase 3 – Learning: Add Interactive Learning Design
(Q3 2014 – 2019+)

Phase One, completed in Q2 2015, focused on user access by improving hardware, remastering all 75 hours of IPIMS videos in Hi and Low bandwidth, and updating the course interface based on the best instructional design methodologies.

Phase Two is a major update of the IPIMS Knowledge system, which began in 2014, and by the end of 2018 included more than 6,000 man-hours of SME Background Knowledge review and updating.

Phase Three consists of a major instructional design transformation of IPIMS Background Learning to meet the needs, challenges, and culture of today’s learner. New features employ interactive content designed to engage the learner and increase learning retention. Content is presented to the learners in a way that permits them to explore and discover material in a challenging manner. An example of an interactive content element is the image slider tool – the learner can see a “before” and “after” comparison view of an image by moving the slider back and forth. Knowledge Checks are questions presented at the end of each subject page to reinforce key concepts and learnings in the content. Question formats vary from multiple choice to drag & drop to image hotspot identification. Assessment questions are also presented in a variety of formats; not only does this make for more engaging learning, it also improves the ability to assess the learner’s knowledge of more complex content.
### The 2019 Release Planning

#### Planned for Q1 and Q2 2019:
- **Petroleum Geophysics**
  - Hydrocarbon Indicators
  - Seismic Interpretation of Shales
- **Petroleum Engineering**
  - Risk Analysis Applied to Petroleum Investments
  - Resources and Reserves Estimation
  - Oil and Gas Pipelines
- **Petroleum Geology**
  - Reservoirs
- **Formation Evaluation**
  - Well Log Interpretation

#### Planned for Q3 and Q4 2019:
- **Petroleum Geophysics**
  - Seismic Stratigraphic Modeling
- **Petroleum Engineering**
  - Perforating
  - Sand Control
- **Petroleum Geology**
  - Traps
- **Formation Evaluation**
  - Well Logging Tools and Techniques

*The 2019 Priority List is subject to change due to input from clients and resource allocation.*

### The 2018 Releases

#### Released February 16, 2018:
- **Petroleum Geophysics**
  - Fault Interpretation
- **Formation Evaluation**
  - Overview of Formation Evaluation

#### Released April 19, 2018:
- **Formation Evaluation**
  - Logging Equipment and Procedures

#### Released June 15, 2018:
- **Petroleum Geophysics**
  - Seismic Contouring
- **Formation Evaluation**
  - Coring

#### Released October 15, 2018:
- **Petroleum Geology**
  - Hydrocarbon Generation and Migration
- **Petroleum Geophysics**
  - Velocity Interpretation and Depth Conversion

#### Released November 16, 2018:
- **Formation Evaluation**
  - Core Analysis

#### Released December 2018:
- **Petroleum Engineering**
  - Completion Equipment
The 2017 Releases

Released June 16, 2017:

- Petroleum Geophysics
  - Basic Seismic Interpretation
- Petroleum Engineering
  - Basic Completion Design and Practices
- Multi-Disciplinary
  - Introduction to Unconventional Resources (NEW)

Released January 13, 2017:

- Petroleum Geology
- Petroleum Geomechanics
- Petroleum Geophysics
  - Gravity and Magnetics
- Petroleum Engineering
  - Hydraulic Fracturing
- Formation Evaluation
  - Dipmeter Surveys

Introduction to Unconventional Resources

This topic reviews the categories of unconventional oil and gas resources such as shale reservoirs, tight gas sands, coal bed methane, and heavy oil. Development, field development, and specialized processes applied to each of these categories are also discussed. Finally, the estimation of available resources and reserves estimations is examined for each category and several case studies are provided.

Subtopics in Introduction to Unconventional Resources:

1. Introduction to Resource...
2. Introduction to Resource...
3. Shale Reservoirs
4. Tight Gas Sands and Their...
5. Coal Bed Methane Reservoirs...
6. Extra-Heavy Oil Resources
The New IPIMS: Features & Functionality

Overview

Two years ago, IPIMS 3.0 went live and has been available for all IPIMS Background Learning Users. The new interface, drawing on the industry’s best instructional design methodologies and technological developments, provides a more user-friendly and enjoyable e-Learning experience. All improvements were designed to increase learning retention while providing a new look and feel.

IPIMS 3.1 was the second phase of this Background Learning update and it incorporated a new Assessment Engine which employs multiple question formats, such as drag and drop image identifier, sequencing, and multiple response. In addition, the assessment engine randomly selects the subject-level assessment questions a learner receives from a pool of questions for the course.

New Features

• Tablet-friendly interface
• iOS and Android compatible
• Interactive Content
• Knowledge Checks
• Multiple format assessment questions
• Scenario-based Assignments
• Draft Pad
• Contextual Help
• Remastered videos
• IPIMS Resource Center includes: Tutorial Videos, PDF Guides, and FAQs
IPIMS 3.2: Action Learning

Action Learning Update

As the final major step to bring all areas in IPIMS to version 3.2, the IPIMS development team has redesigned the Action Learning interface, following the updates that were published for the Background Learning application. If you have taken Background Learning courses recently, you will find the Action Learning interface very familiar. The overall structure, content and “learn by doing” aspects of Action Learning remain the same, but the ease of use and intuitiveness of the new interface makes it engaging and easy to use. IHRDC welcomes client feedback in our design process, so please feel free to send us your ideas!

New Assessment Engine

Updated Module Progress View

Improved view of References and Background Knowledge
IPIMS 3.2: New Search Functionality

Our development team has recently upgraded the IPIMS Search Engine and Background Knowledge ‘Browse by Discipline’ functionality. Below are screen shots of the new pages.

Search Subject Pages

Search Images

Search Videos
# IPIMS Content Releases: 2012 - 2016

## Background Learning Releases in 2016:

<table>
<thead>
<tr>
<th><strong>Petroleum Geology</strong></th>
<th><strong>Petroleum Engineering</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Tectonics and Sedimentary Basins</td>
<td>Fluid Flow and the Production System</td>
</tr>
<tr>
<td>Subsurface Environment</td>
<td>Slickline Well Intervention (NEW)</td>
</tr>
<tr>
<td></td>
<td>Coiled Tubing Well Intervention (NEW)</td>
</tr>
</tbody>
</table>

### Petroleum Geophysics
- Seismic Pulse
- Seismic Reflection

### Petroleum Engineering
- Artificial Lift Methods
- Cementing
- Electric Line Well Intervention (NEW)
- Overview of Rigless Well Intervention (NEW)

## Released in 2015 with “The New IPIMS” Instructional Design Interface

<table>
<thead>
<tr>
<th><strong>Petroleum Geology</strong></th>
<th><strong>Petroleum Engineering</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamentals of Petroleum Geology</td>
<td>Artificial Lift Methods</td>
</tr>
<tr>
<td>Hydrocarbon Properties</td>
<td>Cementing</td>
</tr>
<tr>
<td>Structural Geology</td>
<td>Electric Line Well Intervention (NEW)</td>
</tr>
<tr>
<td></td>
<td>Overview of Rigless Well Intervention (NEW)</td>
</tr>
</tbody>
</table>

### Petroleum Geophysics
- Fundamentals of Exploration Geophysics
- Waveform to Geologic Model
  - (previously “Geological Messages in the Seismic Trace”)
- Signal Theory: A Graphical Introduction

### Petroleum Engineering
- Controlled Source Electromagnetic Methods
- Microseismic Studies of Reservoirs
- Seismic Instruments and Field Techniques
- Synthetic Seismogram
- 3-D & 4-D Seismic
- Deconvolution

## Background Learning Releases in 2012 - 2014:

<table>
<thead>
<tr>
<th><strong>Geology</strong></th>
<th><strong>Petroleum Geophysics</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote Sensing</td>
<td>Controlled Source Electromagnetic Methods</td>
</tr>
<tr>
<td>Petroleum Geomechanics</td>
<td>Microseismic Studies of Reservoirs</td>
</tr>
<tr>
<td>Stratigraphic Disciplines and Sequence Stratigraphy</td>
<td>Seismic Instruments and Field Techniques</td>
</tr>
<tr>
<td></td>
<td>Synthetic Seismogram</td>
</tr>
<tr>
<td></td>
<td>3-D &amp; 4-D Seismic</td>
</tr>
<tr>
<td></td>
<td>Deconvolution</td>
</tr>
</tbody>
</table>

### Petroleum Geophysics
- Chronostratigraphy and Microfossils
- Subsurface Mapping
- Geologic Cross-Sections
- Applications of Petroleum Geochemistry
- Magnetostratigraphy
- Play Analysis

### Petroleum Engineering
- Drill String Components
- Drill Bits
- Directional and Horizontal Drilling
- Energy Projects Economics and Risk Analysis
### Exploration Action Learning Releases in 2013 - 2014:

#### Basin Analysis
- Sedimentology
- Sequence Stratigraphy
- Seismic Sequence Stratigraphy
- Biostratigraphy
- Petroleum Geochemistry

#### Dynamics of Deformation
- Rock Properties and Mechanics
- Tectonics
- Structural Geology

#### Surface Geology and Reconnaissance
- Surface Geology
- Magnetostratigraphy, Chemostratigraphy, and Radiometric Dating
- Remote Sensing
- Geodetic Coordinate Systems
- Gravity, Magnetic, and Electromagnetic Exploration Methods

#### Wellsite Geological Operations
- Geological Operations and Logistics
- Exploratory and Delineation Drilling
- Data Logging and Geological Information

#### Exploration Project Management
- Exploration Process
- Project Economics, Risk and Uncertainty Analysis (Update)
- Value of Information
- Exploration Business Management
- Exploration Project Management

#### Corporate Exploration Planning and Management
- Strategic Scenario Planning and Business Analysis
- Exploration Project Best Practices and Procedures
- Corporate Portfolio Management
- Portfolio Performance Optimization
- Environmental Impact Evaluation

#### Reservoir Description and Characterization
- Petrophysical Evaluation
- Interpretation of Well Logs
- Reservoir Geology
- Exploration Geostatistics (Update)
- Reservoir Geophysics (Update)
### IPIMS 2018 Client List

**Integrated Oil Company**
- BP plc
- Chevron-Bakersfield
- MOL Group
- Repsol S.A.
- Sakhalin Energy Investment Co. Ltd.
- Seplat Petroleum Development Company Plc
- Shell International Exploration and Production B.V. (SIEP)

**National Oil Company**
- Bahrain Petroleum Company - BAPCO
- CNOOC SES Ltd
- CNOOC Uganda Limited
- Japan Oil, Gas and Metals National Corporation (JOGMEC)
- Petroleum Agency SA
- Petrotrin
- PTT Exploration and Production Public Company Ltd.
- Saudi Aramco
- Sonatrach
- Sonatrach Ourhoud

**Upstream**
- Addax Petroleum Cameroon
- California Resources Corporation
- CEPSA E&P
- Chemtura Corporation CO./CIE
- ConocoPhillips
- DCP Midstream
- Empresa Nacional de Hidrocarbonetos de Mozambique
- Foundation Energy Management, LLC
- Hess Corporation
- Hunt Oil Middle East Limited
- Husky Energy
- INPEX Corporation
- LUKOIL Mid-East Ltd.
- Mari Petroleum Company Limited
- Mitsui Oil Exploration Co. Ltd.
- Oando PLC
- Occidental Petroleum Corporation
- Ocean Pakistan Limited (OPL)
- Origin Energy (Australia)
- Pakistan Petroleum Limited
- PDC Energy
- Peru LNG S.R.L.
- PT Pertamina Hulu Mahakam
- Rumaila Operating Organization (ROO)
- Santos - Australia
- Scientific Drilling International UAE
- Suncor Energy Inc.
- Tarbagatay Munay

**Service Company**
- Tullow Ghana
- United Energy Pakistan
- Wentworth - Course Usage
- Wintershall Holding AG
- Woodside Energy Ltd.

**Government**
- Agencia Nacional do Petroleo, Gas Natural e Biocombustiveis (ANP)
- Canada-Newfoundland and Labrador Offshore Petroleum Board
- Directorate General of Hydrocarbons (DGH India)
- Energy Regulatory Commission (ERC)
- Florida Department of Environmental Protection
- Nigerian Content Development & Monitoring Board

**Professional Association**
- Society of Exploration Geophysicists (SEG)
- Society of Petroleum Engineers (SPE)

**Academic**
- Cameroon Petrochemical Engineering Academy (CPE)
- Eduardo Mondlane University
- King Fahd University of Petroleum and Minerals
- University of Clausthal
- University of the Western Cape
IHRDC e-Learning Solutions Product Series

Oil & Gas Business

The Petroleum Online series covers the entire oil and gas value chain and provides a comprehensive overview of the oil and gas industry. It is ideal for those who seek a solid foundation in oil and gas industry business fundamentals.

Upstream Technology

IPIMS is designed for technical staff working in the Exploration and Production (E&P) sector, and these courses enhance their knowledge of the best practices and theories in the industry. It provides two levels of instruction and covers geology, geophysics, petroleum engineering, drilling, formation evaluation, reservoir engineering, and production.

Operations & Maintenance

These courses provide the tools and knowledge that operators and maintenance technicians need to run plants safely and effectively. The courses can be organized in a competency-based approach to ensure workers perform their jobs properly. They cover relevant theories, plant processes, equipment, maintenance, and operations.

Business Essentials

The MBA-level e-Learning courses in key business management areas explore finance, communications, human resource management, project management, marketing, innovation, risk management, and sustainable management. They are tailored to meet the needs of oil and gas industry professionals and developed in partnership with a leading Boston-based business school.