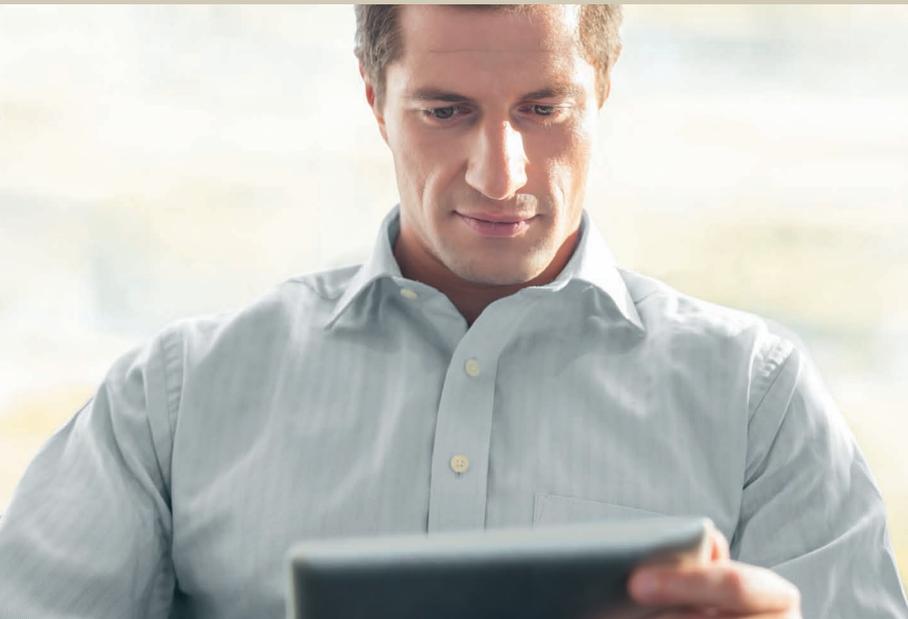


IHRDC

International Human Resources Development Corporation



Competency Based e-Learning Solutions

UPSTREAM TECHNICAL



Accelerate your employee development
to international competency standards.

Why a Competency Based e-Learning Solution?

THE VALUE PROPOSITION

- Provides a single, integrated package that defines competency requirements and aligns learning materials
- Creates a cost-effective solution to accelerate the development of employees
- Aligns learning and development to standard competency models vetted by Society of Petroleum Engineers (SPE) industry experts
- Provides a clear, self-driven learning track for developing real skills
- Standard Job Competency Models can be deployed in 48 hours via web-browser

Knowledge

of facts and theories, procedures and principles.

Skills

both practical and conceptual.

Experience

that contributes to excellent job performance.



go to www.ihrdc.com to learn more

Learn how IHRDC can work with you to help meet your specific competency requirements.

Call +1.617.536.0202 or email competency@ihrdc.com

Competency Models

SPE UPSTREAM

- IHRDC and SPE have collaborated to develop 22 standard competency models
- Focus on entry level positions in the industry, plus the next level positions
- Used IHRDC competency model base as the foundation, and then reviewed with SPE industry experts
- IHRDC has 300 additional competency models that can be added or substituted in the package

TECHNICAL PERSONNEL

Reservoir Engineering and Management

- Senior Reservoir Engineer
- Reservoir Engineer

Production Engineering and Operations

- Operations Superintendent
- Senior Production Engineer
- Production Engineer
- Field Operations Engineer

Well Engineering

- Senior Drilling Engineer
- Senior Completion and Well Intervention Engineer
- Drilling Engineer
- Completion and Well Intervention Engineer

Project and Facilities Engineering

- Project Manager
- Senior Facilities Manager
- Facilities Engineer
- Project Engineer

Health, Safety and Environment

- HSE Specialist
- HSE Manager

Geosciences

- Senior Geologist
- Senior Geophysicist
- Senior Petrophysicist
- Geologist
- Geophysicist
- Petrophysicist

6 Disciplines

199 Competency Units

22 Job Competency Models

524 Identified Training Resources

1 ASSESSMENT

- Access provided through web-based browser based on user role
- Each user assigned standard competency model
- Individual assesses his skills against each competency unit
- Supervisors and assessors ensure assessments are accurate and objective

ENERGY CO | John Smith | IHRDC

My Profile

- Personal Development
- Competency Profile

John Smith

Work: --- | Location: United States
 Mobile: --- | Email: jsmith@ioc.com

Competency Status: 0% — 78% — 100% [Show legend]

You have completed your Self-Assessment against the job title *Reservoir Engineer*.
 You can view your Assessment Results and build your Learning Plan.

Self-Assessment → View Assessment Results → Build Learning Plan

[20] Reservoir Modeling

Understand the difference between black oil and compositional models and the appropriate application of each. Know the applications and limitations of various solution techniques. Perform prediction cases and sensitivity analysis on key reservoir parameters. Analyze different reservoir management strategies.

Competency Levels

Level 1	Level 2	Level 3	Level 4
<input type="checkbox"/> Select All <input checked="" type="checkbox"/> Define the meaning and fundamental role of reservoir modeling and simulation. <input type="checkbox"/> List and describe the different models based on fluid type (black oil, compositional, miscible), number of phases (1P, 2P, 3P), spatial dimensions (1D, 2D, 3D) and time dependency (steady-state, transient)	<input type="checkbox"/> Select All <input type="checkbox"/> Explain the formulation of reservoir modeling and finite difference approximations. <input type="checkbox"/> Describe the applications and limitations of various solution techniques and their associated stability criteria. <input type="checkbox"/> Assist in preparing input data and making computer runs as part of a simulation study.	<input type="checkbox"/> Select All <input type="checkbox"/> Perform a simulation run including the following steps: initialization, fluids and rock properties model, production of oil flow rate, history matching and reservoir performance predictions. <input type="checkbox"/> Generate prediction cases and sensitivity analyses on key reservoir parameters and interpret the results.	<input type="checkbox"/> Select All <input type="checkbox"/> Supervise comprehensive simulation runs and analyze different reservoir management strategies. <input type="checkbox"/> Recommend ideas for future runs and potential technological applications to improve reservoir simulation in general. <input type="checkbox"/> Mentor and coach engineers in reservoir simulation. <input type="checkbox"/> Evaluate different commercial simulators and test their applicability in complex reservoir systems.

2 GAP ANALYSIS AND PLANNING

- Employees can review their individual competency profiles, supervisors can see employees'
- Users build a learning plan by selecting and prioritizing competency development activities
- Training has been pre-matched to job level requirements in each competency unit
- Users can add or subtract from training match-up to create a customized plan

Learning Plan(s) for Competencies

LEARNING PLAN				
ACTIVITY	NAME	DATE ADDED	STATUS	REGISTER
Data Acquisition View Plan				
Added By	J Smith	Jan 23, 2015	N/A	
Training	Data Acquisition	Jan 23, 2015	Not Started	
Training	Reservoir Modeling & Reserv...	Jan 23, 2015	Not Started	
Reservoir Modeling View Plan				
Added By	J Smith	Jan 23, 2015	N/A	
Training	Applied Learning in Reserv...	Jan 23, 2015	Not Started	
Training	Basic Reservoir Engineering	Jan 23, 2015	Not Started	
Training	Reservoir Model Updating	Jan 23, 2015	Not Started	
Integrated Reservoir Characterization View Plan				
Added By	J Smith	Jan 23, 2015	N/A	
Training	Integrated Reservoir Charac...	Jan 23, 2015	Not Started	

3 LEARNING & DEVELOPMENT

- Course match-ups include IHRDC e-Learning as well as SPE training resources
- Included IHRDC e-Learning contains on average 50 individual course titles per competency model
- Each IHRDC e-learning resource launches directly through the LMS
- Training completion records are recorded in the LMS and transferred to CMS Online
- Employees can reassess themselves to close competency gaps

ENERGY CO

Administrator View | Instructor View | Help | License Admin

Home | Courses | Transcript | Tuesday, May 12, 2015

assignments - elective catalog - calendar

back to course list

Manage Course

Course: Reservoir Modeling and Reserves Evaluation (Scorm Web Course)

save appointment to outlook

Expiration Date: 05/16/2015

Course Status: Not Attempted

COURSE CONTENT:

Section Details:

Section Name	Time Spent (Reference)	Status	Score
Reservoir Simulation	00:00:00	NOT ATTEMPTED	
Reserves Estimation	00:00:00	NOT ATTEMPTED	
Reservoir Modeling and Reserves Estimation			

Start Course

IPIMS | Reservoir Simulation

NOTES | FEEDBACK | TEXT SIZE | HELP | TOOLS | BACK

Subject Listing

- All Videos
- Exercises
- Assessment REQUIRED
- Rate this Course
- Back To Topic Reservoir Modeling and Reserves Evaluation

Flow Equations: Multi-Phase and Compositional

00:00 | 01:00

IHRDC

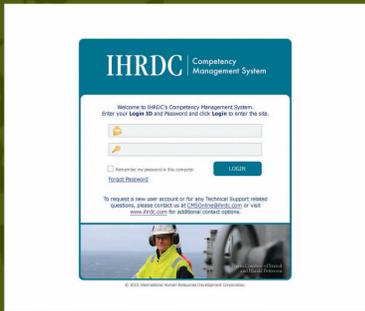
Multi-phase flow equations are based on the same principles that govern single-phase flow, except that they must account for interactions between simultaneously flowing phase in porous media. The main parameters that enter to characterize these interactions are relative permeabilities, saturations and solutions.

← SUBJECT 6 of 22 →

The reader will recall the process of deriving the continuity equation. Note equations. Basically, we obtain the flow equation by substituting Darcy's law into the continuity equation. For multi-phase

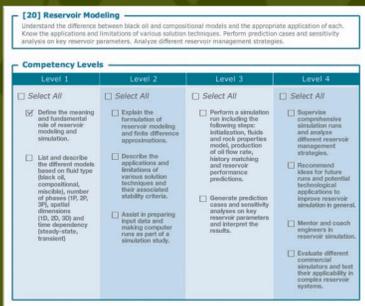
Current: Reservoir Simulation

What does the Upstream Solution Include?



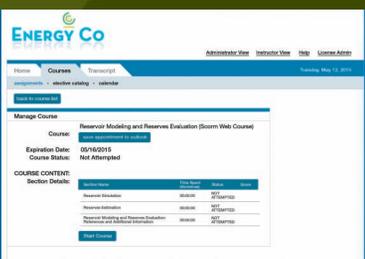
CMS ONLINE SOFTWARE

- Industry-leading competency management software utilized by SPE membership
- SaaS based deployment with 128-bit security
- Powerful management and reporting functionality



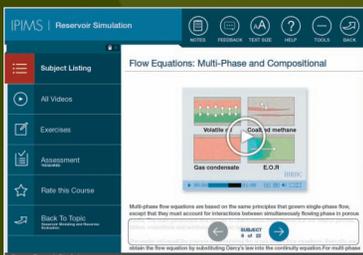
COMPETENCY MODELS

- 22 Upstream models built in coordination with SPE
- Target initial job-holder position and first-line supervisor
- 300 additional industry-standard competency models available



LEARNING MANAGEMENT SYSTEM (LMS)

- Provides powerful reporting functionality
- Tracks all users and course completion
- Data interface with CMS Online



E-LEARNING CONTENT

- Award-winning, oil and gas industry learning content
- Matched to competency models by competency and level
- Provides on-demand learning for employees

IHRDC

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