

The Outdoor Classroom Seminar: Integrated Reservoir Appraisal and Reservoir Modeling



What you will learn: Through this immersive field-based seminar, students will improve their understanding of modeling and their abilities to model geological features affecting reservoir performance through the collection, observation, interpretation, and modeling of geologic, petrophysical, and engineering data. Seminar instructors will present methods for collecting, analyzing, and interpreting data to most efficiently appraise reservoir size and characteristics. Over the course of the seminar, students will visit outcrops that reveal the complex but interpretable geologic features that influence reservoir development. These outcrop observations, along with wireline log data, petrophysical data collected from nearby boreholes, will be incorporated into the geocellular models that must be developed and simulated during the 5-day course.

The advantages and disadvantages to the implementing various geologic concepts (e.g., lithostratigraphy vs. chronostratigraphy) and modeling steps (e.g., gridding, layering, property distribution) will be discussed and tested.

Who Should Attend: This course is designed for petroleum engineers, geologists, geophysicists, petrophysicists, and supervisory personnel responsible for executing field-development programs focused on primary, secondary, or tertiary-recovery projects in conventional terrigenous-clastic reservoirs. The geologic and engineering concepts and practices introduced in the seminar are applicable to reservoirs spanning all depositional settings.

Costs: TBD per person and includes:

- 5 day seminar
- Field guide and exercise materials
- Transportation during seminar
- Lunch, snacks, and drinks during the seminar

Additional costs (responsibility of attendees)

- Transportation to and from Salt Lake City, Utah on May 6, returning May 12.
- Meals other than lunch during the five-day course
- Hotel costs

Registration: Contact us at demacweb@demac.com for more details!

Arrive in Salt Lake City, Utah May 6, 2018. Training will begin the morning of May 7, 2018.

AGENDA:

Day 1: Core laboratory, outcrop visits, field exercises: deltaic & shoreface reservoirs Salt Lake City to Price, UT

- Deltaic and shoreface sedimentologic and stratigraphic concepts
- Core description and wireline-log calibration
- Stratigraphic correlation and reservoir zonation



Day 2: Outcrop visits, field exercises, and initial model construction: deltaic & shoreface reservoirs Price, UT to Green River, UT

- Field-scale structure and stratigraphy
- Facies association petrophysics, stratigraphic relationships, and dimensions
- Controls on vertical- and horizontal-permeability trends



Day 3: Outcrop visits, field exercises, continued model construction, and team presentations/discussions: fluvial & shoreface reservoir
Green River, UT

- Sequence-stratigraphic controls on facies distribution
- Methods to optimize model size and cell dimensions
- Facies and petrophysical modeling



Day 4: Outcrop visits, field exercises, continued model construction: fluvial reservoirs
Green River, UT to Moab, UT

- Fluvial sedimentologic and stratigraphic concepts
- Facies modeling: deterministic versus stochastic methods

Day 5: Geocellular model review and discussions
Moab, UT

- Fluvial sedimentologic and stratigraphic concepts
- Facies modeling: deterministic versus stochastic methods



