



**Society of Petroleum Engineers
SPE Global Training Committee
Training Course Review Process**

The following guideline describes the process of evaluating a proposed training course for consideration by the Society's Global Training Committee (GTC) to become an approved SPE course. For a course to be offered under SPE auspices it must be of the highest technical quality, comprehensive in the way it addresses its topic and judged relevant to today's demanding E&P activity. The review process generally takes three – six months to complete. The Global Training Committee is comprised of volunteer experts in the various Petroleum Engineering disciplines. These experts come from different geographic regions, and different corporate backgrounds to reflect the diversity of SPE membership.

We are looking for 2, 3, 4 and 5 day courses or 60 – 70 minute webinars featuring practical, hands-on approaches to real-world problems. Courses need to have explicit learning objectives and the use of case studies is encouraged. In keeping with the objectives of SPE and its Global Training Program, commercialism during training courses or on course materials is not permitted. Thus company logos, company names, and company product names are prohibited on all but the cover slides. Software should only be used as a tool or reference and not as the only means of achieving course objectives. SPE in no way endorses any specific company, product or service in the delivery of training courses. Our focus is not to compete with commercial providers but to offer a balance of introductory, intermediate and advanced courses and those addressing emerging technologies.

Course submission and approval process

1. A potential instructor, Subject Matter Expert (SME) contacts the SPE Global Training (GT) Specialist to request consideration of a proposed training course to become approved for offering under SPE auspices.
2. The GT Specialist will ask the SME to submit a course outline form (see attached) which includes the course title, course, duration, technical discipline, intended audience, learning objectives, course description and topics covered, any special requirements, and instructor biographical information or CV including education, and professional experience which will support his/her request. The SME will also submit a detailed syllabus (see attached syllabus) and complete course materials/presentation. If the course is in development, a sample of materials, 10-12 slides need to be supplied.
3. Upon receipt of the training course form, syllabus and course materials, the GT Specialist will ask for a volunteer team of two or more GTC members with the appropriate technical background to review the submitted outline and material. GTC members may seek outside expert technical opinion on the proposed course content if necessary.
4. Once a course is approved, it will be nominated as a pilot training course. The time and location for conducting the pilot will be determined by SPE Global Training and the SME.



5. After the course is piloted and evaluated by participants, GTC and SPE Global Training staff will review the evaluations and if satisfactory, will recommend adding the course to the SPE Global Training Catalog and be posted on SPE's website.
6. Future offerings of the course will be determined mutually by the SPE Global Training and the SME.

Global Training Committee Training Course Development

We are specifically looking for 2, 3, 4 and 5 day courses; and/or 60 – 70 minute webinars addressing the following disciplines and topics:

Water management
Data to Action
Well Integrity
Drilling and Completions
Health Safety, Security, Environment and Social Responsibility
Projects, Facilities and Construction
Offshore oil and gas exploration, development and production
Deepwater operations
High temperature – high pressure operations
Hydraulic fracturing
Flow assurance
EOR/IOR
Heavy oil operations
Arctic operations
Development and production of unconventional resources
Optimizing brown field (marginal field) development



Society of Petroleum Engineers Global Training Committee - Training Course Review Sample Form

Please provide this information when submitting a training course outline to the Society of Petroleum Engineers for technical review. This is the first step in the process in getting a course approved as an SPE training course. Submitting this course outline and sample material is not a guarantee of approval. If you have any questions, please contact SPE staff via email at trainingcourses@spe.org and staff will respond as quickly as possible.

Below is a sample form to give you an idea of the desired level of detail. Please pay special attention to the Learning Objectives. A blank form is provided in Word format as an attachment to this document. Both a sample syllabus and a blank syllabus form are also attached.

Course Title

Well Cementing

Instructor Name, Organization, Contact Information

Joe Engineer, John J. Instructor Drilling Company, 222 Palisades Creek Drive, Richardson TX 75080, 972.952.9393 jengineer@spe.org; jinstructor@spe.org

Course Duration

Two days

Technical Discipline

Drilling and Completions

Specify Who Should Attend (Target Audience) & Level of Experience

Please be very specific when listing who should attend. (Introductory, Intermediate, Advanced)

Engineers that are involved in designing and evaluation of cement jobs.
This is a fundamental course for Engineers new to cementing

Identify What Attendees Will Learn – Learning Objectives

List 3 to 5 specific learning objectives – What will students be able to do after attending the training

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

Read and analyze drilling data

Use the drilling data to select the appropriate equipment and cement design for the job

Design a pumping schedule that will ensure there is no fracturing or threat of a kick

Evaluate and make a decision on whether or not a remedial job is necessary by using cement bond evaluations

Design a shoe squeeze if required



Course Description and Topics Covered

Be as descriptive and as complete as possible. This will be used in marketing materials.

This 2 day course examines methods for detecting fluid channels, voids and leaks, and how to repair them. Discussions will begin with the fundamental design principles and progresses through materials, performance, loads and design. A significant portion of the course covers mechanical performance, including working limits, buckling, lockup and fatigue. Discussions will also include knowledge of cements, additives used in cementing and proper procedures for placement. Guidelines for cementing will be discussed for job role performance.

Topics discussed will be:

- Mixing equipment used in cementing
- Laboratory testing
- Case histories
- Differences between primary cementing and remedial cementing

Special Requirements

Please list any special requirements needed for the course.

Example:

- Laptop
- Participants should have moderate experience or exposure to the topic
- Attendees need to bring relevant field well designs and problems to use as in-class exercises

Why You Should Attend

Poor cement coverage affects nearly every aspect of a well. This course will give you a better understanding of some critical well safety and integrity issues.

Instructor Resume/CV

Please attach an up-to-date resume or CV

Prior Teaching or Speaking Experience

Please list any prior experience you have had with teaching or speaking engagements.



Form 2 – Sample Syllabus

Society of Petroleum Engineers

**Training Course
Well Cementing**

by

Joe Engineer and John J. Instructor

Day 1

Morning Session 8:00 – 11:30

- Registration – ½ hr (SPE)
- Student Introduction/Course Expectations – ½ hr (JE/Students)
- Awareness Exercise – ½ hr (JE/Students)
- Introduction – Cement Life Cycle, Cement Management Process, Need for Cementing Performance Analysis – ¾ hr (JE)
- Coffee Break – ¼
- Data acquisition, analysis and management – ¼ (JE)
- Integrated reservoir modeling for performance analysis-- integration of data from geology, geophysics, petrophysics, geostatistics, and engineering – ¾ hr (JIJ)
- Lunch – 11:30 – 12:30

Afternoon Session 12:30 – 5:00

- Geological controls on reservoir performance--depositional environment and diagenesis, reservoir structure, compartmentalization, heterogeneity, fractures, flow units, sweep efficiency and initial distribution of hydrocarbons and water. Where to drill wells for maximum recovery - 2 hrs (JIJ)
- Coffee Break – ¼ hr
- Pore level controls on reservoir performance--recovery efficiency, stress dependent permeability, casing collapse and surface subsidence – ½ hr (JIJ)
- Formation damage--practical aspects of clay-rock reactions - ½ hr (JIJ)
- Rapid prediction of reservoir performance using data from wireline logs, cuttings and/or cores--how to prevent setting pipe on intervals that look good on logs and perform poorly - ¾ hr (JIJ)
- Review Expectations and Feed Back – ½ hr.



Day 2

Morning Session 8:00 – 11:30

- Review – ½ hr
- Dynamic control on reservoir performance - natural producing mechanisms, fluid contacts, variations in layer permeabilities, layer continuity, faults and fracture orientations, directions of flow, kind and number of phases flowing, relative permeabilities, special distribution of wells, well completions, and rates – 1 ½ hr (JE)
- Coffee Break – ¼ hr
- Reservoir performance analysis techniques - volumetric, correlation, decline curve, classical material balance, and simulation – 1 ¼ hr (JE)
- Lunch – 11:30 – 12:30

Afternoon Session 12:30 – 5:00

- Reservoir performance analysis techniques (cont'd) – ¾ hr (JE)
- Reserves determinations - proved, possible, and probable – ½ hr (JIJ)
- Coffee Break – ¼ hr
- Actual examples of integrated field studies - oil, gas, and gas-condensate reservoirs – 1 hr (JIJ)
- Examples of reservoir performance through the reservoir life cycle - economically viable development plan for a newly discovered offshore oil field, revitalization of an actual mature offshore oil field, and economically viable development plan of a Waterflood project for a primary depleted oil reservoir – 1 ½ hr (JE)
- Feedback and Course Evaluations – ½ hr



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Instructor Name, Organization, Contact Information

Course Duration

Technical Discipline

Specify Who Should Attend (Target Audience)

Identify What Attendees Will Learn – Learning Objectives

Course Description and Topics Covered

Special Requirements

Why You Should Attend

Instructor Resume/CV

Prior Teaching or Speaking Experience



Syllabus

Society of Petroleum Engineers

Training Course

by

Day 1

Morning Session 8:00 – 11:30

- Registration – ½ hr (SPE)
- Student Introduction/Course Expectations – ½ hr (Instructor/Students)
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-
- Coffee Break – ¼
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- Lunch – 11:30 – 12:30

Afternoon Session 12:30 – 5:00

-
- Coffee Break – ¼ hr
-
-
-
- Review Expectations and Feed Back – ½ hr.

