

PATHWAY TOWARDS BP'S ENGINEER OF THE FUTURE

Ralph Ladd, Engineering L&D
Coordinator

HARD WORK MEANS going beyond the given formulas; it means getting down to the basics involved in oil and gas phenomenon. This is what engineers and students, fortunate enough to attend one of Dr. Mark Orazem's courses, have learned.

Going back to school after spending time practicing as an engineer is a luxury many engineers wish they could afford. Their work experience provides them with a unique frame of reference and enables them to approach the subject at a deeper level. This is all part of BP's Engineer of the Future, where engineers are expected to be 'life-long' learners integrating their many experiences with both formal and informal learning.

Dr. Orazem, a research and teaching professor of Chemical Engineering at the University of Florida in the US was contacted by AzBU Engineering Manager Kevin Kennelley two years ago and invited to come to Baku to help train young engineers. Mr. Kennelley and Dr. Orazem had worked together on a collaborative effort using theoretical and applied engineering practices that resulted in significant cost savings for the Trans-Alaska pipeline. "I knew he would be the right professor to help us here in Azerbaijan," comments Mr. Kennelley. "Over the years, the success of this approach has helped to push engineering development within the business unit to the forefront of the upstream segment."

Mr. Kennelley adds, "Bringing Mark over here provides a great combination of engineering principles



being taught through real-life engineering problems. It's important to take the fundamentals of engineering science and apply them on their job as practicing engineers."

Through Dr. Orazem's courses, over thirty BP engineers and university students have received training in a variety of foundation-level courses. Focusing on engineering problem-solving methods he has covered such topics as fluid mechanics, heat transfer, mass transfer, separation processes, and material balances. These are all areas that impact process, process-control, pipeline, and mechanical engineers everyday.

"It's both challenging and fun," commented one of his students. "We really appreciate Dr. Orazem's teaching methods – lectures in the morning followed by problem-solving in the afternoon. Sometimes my head hurts from all the equations and formulas."

These types of courses form a strategic element in BP's integrated plan to build technically competent and globally competitive professionals within the business unit. The move to accredit BP's engineers within the UK Engineering Council system and along with these two-week intensive courses taught by a leading western professor can provide them with a recognised certificate.

Over thirty of Dr. Orazem's current and former students gathered together to celebrate and recognise their progress on 11 March at the Panoramic restaurant in the ISR Plaza. Each student received a Certificate of Accomplishment signed by Dr. Orazem, Kevin Kennelley, and Mr. Ralph Ladd, the Engineering L&D Coordinator.

When asked to comment, Dr. Orazem replied, "The top students in these classes could easily compete with my top undergraduate students in the US. It is a pleasure to teach them."

