

Developing the Future Energy Industry Professional

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The role of universities in preparing professionals for work in industry is explored in this presentation. Not only must professionals have a solid grasp of the fundamentals of their respective disciplines, they must have working knowledge of the technologies specific to their specialization. They must also be equipped with softer skills regarding professional ethics and social responsibility, including environmental sensitivity and stewardship. The trend towards professionals working in multi-disciplinary teams will likely increase placing greater emphasis on breadth of knowledge and understanding as well as communication skills. Some new and innovative energy and environment related programs will be described to illustrate how the University of Calgary is providing innovative programs designed to provide students with the skills to be successful.

Biography

Tom Harding is currently Professor and Head of the Department of Chemical and Petroleum Engineering in the Schulich School of Engineering at the University of Calgary. He joined the University in January 2004 after a 28 year career in the petroleum industry. He has varied engineering experience related to heavy oil, conventional oil and gas production operations both domestic and international. Dr. Harding holds B.Sc. (1973) and M.Sc. (1976) degrees in Chemical Engineering from the University of Calgary and a Ph.D. (1986) in Petroleum Engineering from the University of Alberta. His main areas of interest are in thermal recovery of heavy oil, enhanced recovery of conventional oil, and management of produced water associated with oil and gas recovery operations including minimization of fresh water usage for hydrocarbon recovery and beneficial reuse and recycling of produced water. He conducts research in optimization of the steam-assisted gravity drainage process (SAGD) for heavy oil and bitumen recovery and in treatment and recycling technology for oil sands waste water.