

High oil prices rekindle interest in oilpatch careers

MELANIE COLLISON
Special to The Journal
EDMONTON

Given the time it takes to earn a degree — or two, or three — it is quite an art to co-ordinate supply and demand for geologists, geophysicists and petroleum engineers in the cyclical energy industry.

Slumps in the '80s and '90s dampened the appeal of the earth sciences. In sharp contrast to today's bulging classes, universities had empty seats. The result? Industry has a generation gap.

Faced with the retirement of their senior members, companies are casting about for ways to train their younger employees.

Factor in that the science of exploration is changing as Alberta's conventional sources of natural gas and oil diminish, and the task of meeting industry's need for earth-science expertise has become even more challenging.

High commodity prices and the phenomenal investment in oilsands development, along with the resulting demand for professionals, have rekindled keen interest in oilpatch careers.

While student quotas increased across the board at the University of Alberta in Edmonton two years ago, "this department is unusually high," says Tayfun Babadagli, a professor in the school of mining and petroleum engineering. "The number of graduate students has increased as well.

"The university's name is well known. Good oil prices mean we get enough resources and can increase our faculty. Companies give us research grants or fund projects."

Elsewhere on campus, the geosciences are investigating how industry partnerships can help them restructure their programs to supply the skill sets the industry requires.

"The plan is to implement a course-based master's program in petroleum exploration geoscience," says Martin Sharp, chairman of the department of

earth and atmospheric sciences, which is housed in the faculty of science.

"It would be a joint effort between the geophysics group in the department of physics and the petroleum geology group in atmospheric science."

The established thesis-based master's degree develops students' research skills, Sharp says, but the current need is for exploration skills. "We want to give more attention to unconventional sources of hydrocarbons — coal-bed methane, tight gas, shale gas — and the issues that arise, because those are going to be a very important part of the energy future."

A course-based master's would build students' exploration skills by enriching their breadth of study. Geology students would add geophysics courses, and vice versa. Industry wants geologists and geophysicists to understand each other's language so they can work in interdisciplinary teams.

Introducing the course-based master's program by the September 2007 target will require working out details and solving the questions about funding and resources, and gaining approval from the province.

"It would probably be offered on a cost-recovery basis," Sharp says. "Companies might hire people, then send them for their first year for their training. If we can come up with a proposal that helps (industry) in a significant way, hopefully we can find a way to make (a partnership) work."

The university will need to recruit someone from industry who has significant experience in exploration.

"We already have a strong petroleum group and a strong geophysics group," Sharp says, but by knowing the practical requirements of industry, the individual overseeing the program will be able to apply the university's research expertise to construct the appropriate curriculum.

The new master's program builds on the excitement generated by an infusion of centennial cash that will see the

“The university's name is well known. Good oil prices mean we get enough resources and can increase our faculty. Companies give us research grants or fund projects.”

Tayfun Babadagli, U of A professor, school of mining and petroleum engineering