Civil Engineering Capstone Design Course at Schulich School of Engineering

Information for potential industry advisors

In the fall and winter terms, 4th year Civil Engineering students take a design course, ENCI 570:
Team design project applying engineering and project management principles to civil engineering design problems; Consideration of technical, resource allocation and business aspects of project; Development of project scope, design, specifications, scheduling and documentation; Elements of practical team management and leadership; Specific guidance provided by academic and industry advisors.

Student teams: There are typically about 12 teams, each comprised of about 4 to 12 students. Each team works on one project from September to April with advice from an industry advisor and an academic advisor. Each student should work about 200 hours on the project.

Source of projects: Some academic advisors identify a project in consultation with their industry contacts, who often becomes the industry advisor. Sometimes industry leaders contact the course coordinator (jacqueline.vera@ucalgary.ca, 403.220.8793), or vice versa.

What makes a good student project? One from which the students will learn about the design process and from working on a design team. Often this is a potential project that may or may not be designed and built. If the scope is vague, the student team, in consultation with their advisors, need to develop a specific scope early in the fall term. Projects may be cross disciplinary or may fit into traditional sub-disciplines, e.g. structures, transportation, geotechnical, environmental. Most projects are in the Calgary area or southern Alberta and many involve a site visit or two.

Benefits of being an industry advisor: Advising students and being involved with the Schulich School of Engineering are rewarding. You get to interact with some talented 4th year students (prospective employees?). You will receive the student reports and design, which may be helpful if the project is subsequently pursued.

What is required of an industrial advisor?

In consultation with an academic advisor or the course coordinator, develop a half-page description of the project between May and mid-August. Projects must involve engineering design and analysis.

Provide a clear description of the project, the expected outcome and deliverables, and the type of support (financial/technical) that your company will provide. Also, assign a representative who will be liaising with the students and the course instructor. For this item, the course coordinator will provide a template. Please note that financial support from your side to make the project happen may not always be necessary. Facilitate a site visit if applicable. The advisor is expected to attend a few sessions for project presentations and evaluations at the university at various stages of project progress. Also, you may be asked for your comments on the December or April reports.
Got an idea for a project? Or seeking further information? Please contact Jacqueline Vera (jacqueline.vera@ucalgary.ca, 403.220.8793)