

REAL-WORLD LEARNING

NAME UNIVERSITY OF CALGARY

LOCATION CALGARY, CANADA

WEBSITE WWW.SCHULICH.UCALGARY.CA

CIVIL ENGINEERING STUDENTS who embarked on their higher education 50 years ago would scarcely recognise the field today. While the core skills remain – gaining a deeper knowledge of building and structure – today’s civil engineering students can also look forward to some fascinating applications of this knowledge.

Three of the faculty members at the University of Calgary’s Schulich School of Engineering illustrate this point perfectly. Dr Nigel Shrive – a long-time expert in civil engineering – has spent his career applying structural engineering principles to biological structures. He is perhaps best known for his work on the healing of knee ligaments after injuries. Similarly, Dr Andrew Tay, a Canada Research Chair in Wastewater Engineering, has developed more than 30 treatment processes to achieve cleaner water. The work of Dr Lina Kattan – a recognised expert in intelligent transportation systems – includes understanding and anticipating the impact driverless cars will have on traffic stability and traffic control. Her research is resulting in a body of knowledge that will ultimately save lives, increase road safety and ease traffic congestion.

What these lines of research all have in common is their real-world impact, something the school achieves thanks to the interdisciplinary nature of its work. “There are some interesting opportunities to solve problems, where the solution lies in the intersection of traditional and modern areas of civil engineering,” says Schulich School of Engineering Dean Bill Rosehart. “We make sure that an interdisciplinary focus is always at the heart of what we do, from undergraduate right through to research programs. Faculty members from different fields get together on a regular basis, and that can lead to interesting research collaborations.”

Civil engineering is a foundational programme at the University of Calgary, one that was established when the university was founded over 50 years ago. Leaving its academic achievements aside, the university also places a significant emphasis on student success – helping them find jobs in an exciting and diverse range of careers, including within biomedical and environmental fields.

“We encourage our students to get an integrated experience at university,” says Rosehart. “They’re not here to only learn knowledge, they’re here to develop as a person and as a thinking, positive contributor to the world.”

