

2022 CHAMPION OF ENGINEERING EDUCATION AWARD

Dr. Donald Petkau, P.Eng.



Donald Petkau graduated from the Department of Agricultural Engineering at the University of Manitoba in 1985 before working as an Agricultural Manager with Roger's Sugar industries in Manitoba. He then moved to Agricultural Research and Development with the Prairie Agricultural Machinery Institute (PAMI) in Portage la Prairie where he managed a staff of engineers and technicians designing agricultural machines and completing engineering projects for three years. In this role, he also collaborated with researchers at the University of Manitoba and University of Saskatchewan to develop mechanical

harvesting equipment for sea buckthorn berries. Don subsequently moved to MESH Technologies as Manager of Engineering, where he was responsible for the design and construction of a multimillion-dollar flax straw production plant for two years.

Don began teaching courses at the University of Manitoba in 2001 as a sessional instructor. In 2009, Don was hired into a full-time position in the Department of Biosystems Engineering at the rank of Instructor II. He successfully completed a PhD in engineering education in 2014 and was promoted to the rank of Senior Instructor. Since 2006, Don's primary teaching responsibility has been ENG 1430 Design in Engineering. Don is the coordinator for this core first-year course taught to approximately 400 undergraduate students every year. His expertise gained from this course was vital to the development of a new course on reverse engineering, which is now part of the package of the four compulsory course "design spine" in the Department of Biosystems Engineering. Don had agreed to teach the final two courses of the design spine (i.e., the Biosystems capstone courses) virtually during COVID.

Don has regularly provided mentorship to engineering students belonging to the University of Manitoba's Scale Tractor Team (UMATT). His advisory approach has contributed to the success and stability of this student-run team over the past decade. Under Don's mentorship, UMATT has become a well-established, inter-disciplinary team annually representing the University of Manitoba with integrity and professionalism. The UMATT team has had a number of excellent showings at the annual competition, culminating in first place overall in the 2021 competition. Don also contributed to the supervision of SAE teams when the regular advisor was not available.

Don is involved in the promotion of a safety culture within the Price Faculty of Engineering and, during the summers of 2016 and 2017, he supervised co-op students to meet with the faculty to develop safe work procedures for undergraduate teaching laboratories and the research laboratories. Don continues to represent the safety culture which benefits all students graduating from the Price Faculty of Engineering.

In 2016, Don was the recipient of the Excellence in Engineering Education Award sponsored by the Faculty of Engineering and he received the CSBE/SCGAB Glenn Downing Award in 2017 in recognition of his outstanding work in industry and teaching in the area of power and machinery.

In recognition of Donald's continued support, mentoring, and commitment to engineering students, Engineers Geoscientists Manitoba, together with the Price Faculty of Engineering at the University of Manitoba, are pleased to present the 2022 Champion of Engineering Education Award to Dr. Donald Petkau.