

Title:

**Chemistry and Indigenous Knowledge:** Development of a Novel Chemistry of Food and Cooking Course and Medicinal Plant Survey Highlighting Indigenous Food and Medicine Traditions

Abstract:

A new *Chemistry of Food and Cooking* course has been developed and offered at First Nations University of Canada. The course has been designed to engage non-science and undeclared students in an introductory science course, with particular emphasis on providing students with practical knowledge in chemistry and its application to food and cooking, and Indigenous Knowledge. The course covers introductory chemistry topics but is exceptional in that diversity and inclusivity is encouraged by highlighting Indigenous Food Traditions with discussions with First Nations Elders, chefs and other Traditional Knowledge holders. An innovative assessment strategy had been employed, featuring an unconventional food laboratory. During the ongoing pandemic, with remote teaching the norm at most Canadian universities, an alternative to on-campus labs and in-class demonstrations was sought. Our food laboratory manual was adapted to feature a take-home food lab kit that maintains an interdisciplinary approach to the chemistry laboratory. This chemistry course has engaged Aboriginal, International and other attending students effectively and we will apply lessons learned during an unusual period to future installments. Our Indigenous Medicinal Plant survey, and its connection to Indigenous Food Traditions will also be discussed.