

ENVIRONMENTAL SCIENCES SEMINAR SERIES, **WINTER 2025**

Date(s): Mar 20

Speaker: Dr Nancy van Wagoner

Title: Volcanoes and climate change in TRU's backyard

Abstract: The Paleocene-Eocene Thermal Maximum (PETM) (~ 56 million years ago (Ma)) and Early Eocene Climatic Optimum (EEOC) (54 – 48 Ma) were the warmest times of the Cenozoic Era (last 66 Ma), with mean surface temperatures estimated to be about 10-16 °C above pre-industrial levels. Geoscientists look to these past events as a way of understanding current climate change and forecasting potential consequences. To that end, understanding emissions of gases and particles released during major volcanic events (Large Igneous Provinces or LIPs) is important because of their potential to both drive and resolve climatic perturbations, in addition to being related to periods of mass extinction.