Course Description for Bulletin:

EESC G6700 – Magmatism and Volcanism. 3 pts

**Pre-requisites** One year each Chemistry, Calculus, Physics and Earth sciences.

This course explores the origin of magmas and their subsequent movements; their ascent, stalling and eruption; their transport of heat and mass through the earth; their formation of crust and creation of volcanoes. The course will explore magmatism itself - its chemical and physical underpinnings – and also develop magmatic tools used to understand other earth processes. Topics will be focused around Grand Questions. Example questions include: What do magmas tell us about the thermal structure of the earth? Why do magmas store and stall where they do? What drives the largest eruptions on Earth? Does continental extension drive melting or melting drive extension? Questions will evolve to reflect the state of the field and student interest. The course is designed to serve as an accessible breadth course for Earth Science graduate students in any discipline.