New Course Winter 2020

CLIMATE ACTION:
Mitigation, Adaptation, Geoengineering

CIV_ENV 295-0-23

MWF 10:00 – 10:50 am

Instructors: Professors Robert A. Dalrymple & Kimberly Gray

Prerequisites: MATH 224; CHEM 131/151/171 or equivalent.

Societies are dealing with the impacts of a rapidly changing climate as they struggle with rising sea levels, worsening heat waves, floods, droughts, and wildfires. The role of engineers, particularly civil and environmental engineers, is critical in tackling these challenges. The goal of this course is to explore strategies for an adaptive and resilient future that permits people to live, work, move, and build in an ecologically sound, economically viable, and socially just manner.

The following topics will be explored:

- *Changing climate*
- *Effects – extreme events, coastal inundation, heat waves, droughts, floods, wildfires*
- *Societal & public health impacts*
- *Climate Interventions – mitigation strategies*
- *Adaptation & resilience*
- *Geoengineering*
- *Case studies – the Arctic, Cities*