New Water Resources Engineering Course for Spring, 2017:

CVEN 5833(001)* Open Channel Hydraulics

3 credits; Tu/Th – 12:30-1:45 pm, Instructor: M GOOSEFF

This class will focus on the hydraulics of water moving in open channel settings and culverts. We will explore the foundations of open channel flow and several applications of those to hydraulic structures and infrastructure upon which society relies every day.

We will explore several topics, including:

-- gradually and rapidly varied flow
-- flumes, weirs
-- flood wave routing
-- dam spillways
-- culvert design
-- overbank flows
-- streamflow measurement
-- sediment transport
-- channel design
-- modeling water levels and flows from real-world settings

This class provides a technical elective for upper level undergraduates and graduate students.

image from inmtn.com web page

The course will have 10-12 weeks of in-classroom learning, and then we will transition to 3-4 weeks of computer model learning in the Bechtel lab, culminating in a group project to re-design a channel/bridge crossing in a real-world case study. Students will get experience with several related software packages (ArcGIS, HEC-RAS, and GeoRAS).

Pre-Requisite: Fluid Mechanics (i.e., CVEN 3313 or similar).

Contact Dr. Gooseff if you have any questions - michael.gooseff@colorado.edu

*note that there are multiple sections of CVEN 5833 for the spring semester, each a different course