

SYSTEMS DESIGN ENGINEERING

Analysis and Design of Natural Systems

SYDE 730 -9

Winter

The course will involve two sections with the first section covering fundamentals of natural systems modeling and suitable numerical methods. Octave (or Matlab) will be used. The second section will cover introduction and the use of large scale computer models available for scientists and engineers that are developed for global climate, bio/eco systems, and air/water/soil pollution. Studying the effect of policy decisions is a main goal of this section. A major project may require field trips and onsite short internships outside Waterloo. The second part requires a good skill level in the use of programming languages such as C or Fortran.

Instructors: K. Ponnu

Email: ponnu@uwaterloo.ca

.