

**The University of Western Ontario  
Department of Civil and Environmental Engineering**

**Course:** Water Resources Systems Management  
**Course number:** CEE9564  
**Instructor:** Professor Slobodan P. Simonovic  
Room SEB3015  
Phone (519)661-4075  
E-mail [simonovic@uwo.ca](mailto:simonovic@uwo.ca)  
**Time:** Lectures: Wednesday 8:30-9:30 and Thursday 8:30-10:30  
Tutorial: Monday 13:30-15:30  
**Room:** Lectures SEB2202; Tutorial SEB1015

**Course Objectives**

This course is designed to provide students with: (a) the application of systems approach to the solution of complex water resources management problems; (b) the knowledge of simulation, optimization and the multi-objective analysis. The course is aimed at graduate students preparing to work in water resources engineering field.

During the last four decades, application of systems approach to water resources management problems has expanded from simple simulation and single objective optimization, to the introduction of system dynamics simulation, evolutionary optimization and multi-objective analysis and sophisticated evaluation methods based on the consideration of risk and uncertainty.

**Course Requirements**

All students are required to have CEE3361 Water Resources Management course completed or corresponding course approved by the instructor. This course may take one of two forms

- A. If the course attendance is up to 10 students this will be a project-oriented reading-directed course. Students will have open hands to select one problem of their choice (with the approval of the instructor), formulate the problem using tools presented in the class, solve the problem, make the presentation and prepare a report for grading. Model development process will be monitored through the regular/weekly consultations with the course instructor.
- B. If the attendance exceeds 10 students the course will have 10 homework assignments and final examination.

**Required Course Textbook**

Simonovic, S.P. *Managing water resources: Methods and tools for a systems approach*, Earthscan, London, Sterling VA, 2009.

**Assessment of Students (version A)**

Discussions, participation	5%
Project	
(a) Model development	50%
(b) Model demonstration and presentation (20 min)	20%
(c) Report (maximum 20 pages)	25%

**Assessment of Students (version B)**

Homework assignments	40%
Final exam	60%