

## SYLLABUS for Vadose Zone Hydrology (CE 320-3) SPRING 2004

---

**Purpose:** The course provides the theoretical and practical basis for understanding and quantifying physical and hydrological properties of soils and other porous media. We focus on hydro-physical processes taking place near the Earth's surface emphasizing mass and energy exchange, and transport processes in partially-saturated porous media at multiple scales. The coupling with the atmosphere and the role of plants in the hydrological cycle will be studied. We will review modern measurement methods and analytical tools for hydrological data collection and interpretation. The course provides conceptual and practical tools for addressing vadose-zone related environmental engineering challenges.

---

**Instructor:**  
CAST 313  
Phone: (860) 486-2768  
E-mail:

---

**Office Hours:** Monday 2:00-3:00 CAST 313  
Wednesday 2:00-3:00 CAST 313

---

**Time:** **Classes:**  
Monday 4:30-6:00PM CAST 206  
Wednesday 4:30-6:00PM CAST 206  
**Labs:**  
Thursday 1:00-4:00PM CAST 105

---

**Text:** Classnotes - **Vadose Zone Hydrology, by Or D., J.M. Wraith, and M. Tuller** will be available to registered students on the course . Supplemental textbook: **Environmental Soil Physics, by: D. Hillel**

---

**Grades:** 35% on homework problems  
10% on each of the three examinations  
20% on laboratory reports  
**Scale:** A>90%; B=80-89%; C=70-79%; D=60-69%; F<60%

---

**Homework & Lab Reports:** Homework is due in class on Monday, 1 week after being assigned.  
Lab reports are due at the beginning of the following lab session.

---