



Groundwater Research Center (GRC)

قابل توجه دانشجویان درس زمین و منابع آب (آبهای زیرزمینی)

COURSE OUTLINE – GROUNDWATER

Course Description

This is a course for students in the faculty of Science who want to learn more about the origin, distribution, movement and the quality of groundwater resources. We will explore important themes such as:

- Definitions, Principles, Aquifer Characteristics
- Solutions to the Groundwater Flow Equations
- Pumping Tests - Analytical Solutions
- Groundwater Geochemistry
- Groundwater Exploitation, Geoelectrical methods, Artificial Recharge

Course Format

Lecture series will be based on selected topics from text books.

Coordinator

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Course website: www.um.ac.ir/~mohammadzadeh/ OR www.science.uottawa.ca/~hm/

Course Schedule (Lectures)

Wednesday	8:00-10:00	Faculty of Science, Room 21
Tuesday	16:00-18:00	Faculty of Science, Room 21

Course Evaluation

Homework	20%
Mid-term	50%
Final exam	30%

Suggested Textbooks:

1. Fitts, Charles R., (2002). *Groundwater Science*.
2. Fetter C.W., (2001). *Applied Hydrogeology*.
3. Freeze R.A., Cherry J.A., (1979). *Groundwater*.
4. Hudak Paul F., (2005). *Principles of Hydrogeology 3rd Edition*.
5. Nonner Johannes C., (2006). *Introduction to Hydrogeology*.
6. Schwarts F.W. Domenico P.A. (2001). *Physical and Chemical Hydrogeology*.