The Islamic University of Gaza  
Faculty of Engineering  
Civil Engineering Department  
Infrastructure Msc.  
Special Topics in Water and Environment - ENGC 6383  
Instructors: Dr. Yunes Mogheir, Dr. Ahmed Abu-Foul

Course Objective:
This course is designed to present:

- The principles underlying the groundwater hydrology which consists of groundwater flow, pumping tests, groundwater exploration, well design and, hydrology of coastal aquifers. In addition to a very brief groundwater modeling which includes the flow and the transport modeling.
- Aspects of solid waste collection, recycling, reuse and disposal.

Course Content:

PART 1: Groundwater Hydrology Principles (7 weeks)

1. Occurrence of groundwater  
2. Zones of groundwater  
3. Movement of groundwater and its velocity  
4. Measurement of yield of groundwater (Aquifers)  
5. Well design  
6. Hydrology of Coastal Aquifer and Problems of Sea Water Intrusion  
7. Groundwater Modeling

Midterm Exam

PART 2: Solid Waste Management (6 weeks)

Course text:

Recommended Reading:

Exams and Grading Policy:
Homework and class participation ................................................................. 20%  
Mid-term Exam ............................................................................................ 30 %  
Final Exam .....................................................................................................50%  
Total ...........................................................................................................100%