

Department of Civil Engineering			
Environmental Engineering Lab. (61452)			
Total Credits	1		
major compulsory			
Prerequisites	P1 : Environmental Engineering II (61451) P11Synch. : Environmental Engineering II (61451)		
Course Contents			
Water and wastewater quality parameter measurements . Physical, chemical, and biological properties will be measured in this lab . such as BOD,COD,Solids ,turbidity ,EC.....etc			
Intended Learning Outcomes (ILO's)		Student Outcomes (SO's)	Contribution
1	An ability to do basic chemical calculations and write a master report in environmental engineering	B	40 %
2	An ability to collect samples, measure water or wastewater quality parameters and compare it with standards.	B	50 %
3	An ability to work in teams and understand responsibility.	D	10 %
Textbook and/ or References			
Hasan, A; Tubeileh, H. Environmental Engineering Lab, An-Najah National University , 2013.			
Assessment Criteria		Percent (%)	
Mid. Term Exam		20 %	
Laboratory Work		40 %	
Final Exam		40 %	
Course Plan			
Week	Topic		
1	Introduction and Safety		
2	Sampling (visit to the treatment plant in the university)		
3	Physical properties measurement.		
4	BOD test.		
5	COD test.		
6	Alkalinity Test.		
7	Total and Fecal coliform measurement		
8	Hardness Test		
9	Midterm Exam		
10	Field Trip.		
11	Phosphorus measurement		
12	Ions measurements		
13	Chlorine measurement.		
14	Nitrogen measurement		
15	Final Exam		