

Department of Civil Engineering				
Transportation Systems Engineering II Lab. (61464)				
Total Credits	1			
major compulsory				
Prerequisites	P1 : Transportation Systems Engineering II (61463) P11Synch. : Transportation Systems Engineering II (61463)			
Course Contents				
Practical training on selected issues of traffic engineering with the focus on data collection and analysis. The course also includes application of theoretical and practical knowledge of traffic engineering and design in a group project.				
Intended Learning Outcomes (ILO's)			Student Outcomes (SO's)	Contribution
1	1. an ability to apply knowledge of mathematics, science, and engineering in traffic engineering studies		A	15 %
2	1. an ability to design and conduct traffic engineering experiments (studies) and to analyze and interpret the data and work as part of a multi-disciplinary team		B	50 %
3	1. an ability to design a traffic system and its component and operational characteristics (intersections, traffic controls, highway segments, parking, and delay)		C	20 %
4	1. an ability to identify, formulate, and solve traffic engineering problems such as intersection controls, capacity and level of service, and highway segments.		E	15 %
Textbook and/ or References				
Al-Sahili ,K. Traffic Laboratory Manual, An-Najah National University , 2013.				
Assessment Criteria		Percent (%)		
Mid. Term Exam		15 %		
Projects		20 %		
Laboratory Work		35 %		
Final Exam		30 %		
Course Plan				
Week	Topic			
1	General Introduction the Use of Condition Diagram			
2	Speed Studies - Spot Speed Studies (Time-Mean Speed)			
3	Speed Studies Space-Mean Speed			
4	Traffic Volume - Vehicle Classification Studies - Manual			
5	Traffic Volume - Classification Studies Using Machines			
6	Traffic Volume Studies Intersections Manually and Hand Machines			
7	Parking Study			
8	Pedestrian Volume Count Study			
9	Intersection Delay Study			
10	Inventory Study			
11, 12 , 13 &14	Project - Intersection Traffic Design and Control			