

Tárgytematika / Course Description

Traffic engineering

EKNB_KETA012

Tárgyfelelős neve /

Teacher's name: dr. Borsos Attila

Félév / Semester: 2023/24/1

Beszámolási forma /

Assesment: Vizsga

Tárgy heti óraszám /

Teaching hours(week): 2/1/0

Tárgy féléves óraszám /

Teaching hours(sem.): 0/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

The goal of the course is to make students familiar with the most important concepts and tools of road traffic engineering.

TANTÁRGY TARTALMA / DESCRIPTION

Week	Date	Topic	Literature	Lecturer
1.	6th Feb.	Introduction to the course Traffic flow, speed and density	Mannering 5.1, 5.2.	Attila B.
2.	13th Feb.	Traffic stream models (speed-density, flow-density, speed-flow)	Mannering 5.3.	Ahmad K.
3.	20th Feb.	Models of traffic flow (vehicle arrivals – Poisson; headways – negative exponential)	Mannering 5.4.	Attila B.
4.	27th Feb.	Highway capacity – level of service	Mannering 6.1, 6.2, 6.3, 6.4	Othmane B.
5.	6th March	Multilane highways, two-lane highways, design traffic volumes	Mannering 6.5, 6.6, 6.7	Amira H.

6.	13th March	Traffic control at signalized intersections - signal control characteristics	Mannering 7.1, 7.2	Bereket K.
7.	20th March	Traffic control at signalized intersections – traffic flow fundamentals, traffic signal phasing and timing plan	Mannering 7.3, 7.4	Bereket K.
8.	27th March	Traffic control at signalized intersections - traffic signal phasing and timing plan	Mannering 7.4	Bereket K.
9.	3rd April	Roundabouts, capacity analysis		Othmane B.
10.	10th April	<i>Easter Monday, no class</i>		
11.	17th April	Traffic calming		Ahmad K.
12.	24th April	Bicycle, pedestrian infrastructure		Amira H.
13.	1st May	<i>Labor day, no class</i>		
14.	8th May	Parking		Ahmad K.

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESMENT'S METHOD

Written exam: typical exam questions/exercises are provided in lecture slides

Evaluation:

55-64% sufficient (2)

65-74% satisfactory (3)

75-84% good (4)

85%- excellent (5)

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Recommended literature: indicated in the course schedule and in the last slide of every lecture

AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL