

IZMIR INSTITUTE OF TECHNOLOGY
CIVIL ENGINEERING DEPARTMENT

**CE 351 – INTRODUCTION TO TRANSPORTATION ENGINEERING
SYLLABUS
SPRING 2026**

Class Meeting Time: Thursdays 9:45 – 11:30
Fridays 13:30 – 15:15

Location: B213

Instructors: Asst. Prof. Dr. Tolga ERCAN – Email: tolgaercan@iyte.edu.tr
Res. Asst. Dr. Bora Dođaroglu – Email: boradogaroglu@iyte.edu.tr

Office Hours: Only by appointment

Description: The course mainly provides the knowledge about the subjects of road vehicle performance, geometric design of highways, fundamentals of traffic flow, highway capacity and level-of-service analysis, and intersection control.

Textbook:

- Principles of Highway Engineering and Traffic by Fred Mannering and Scott Washburn (2019). Wiley. Seventh Edition.
- Karayolu Mühendisliđi, Nadir Yayla (2004)., Birsen Yayınevi.

References:

- 2918 Sayılı Karayollari Trafik Kanunu
- Karayollari Trafik Yonetmeliđi
- Karayolu Trafik Isaretleme Standartlari
- A Policy on Geometric Design of Highways and Streets ('Green Book'), 2018, Seventh Edition, The American Association of State Highways and Transportation Officials (AASHTO).
- Highway Capacity Manual 6th and 7th Editions
- Highway Safety Manual, 1st Edition, 2010, (including 2016 Errata)
- Manual of Uniform Traffic Control Devices (MUTCD), 2009, <https://mutcd.fhwa.dot.gov/>

Grading Policy:

- Pop-Quizes: **%20**
- Homework: **%10**
- Midterm Exam: **%30** of the grade
- Final Exam: **%40** of the grade

Date	Week	Lecture Content
26/2/2026 – 27/2/2026	Week 1	Introduction to Transportation Engineering
5/3/2026 – 6/3/2026	Week 2	Road Vehicle Performance
12/3/2026 – 13/3/2026	Week 3	Road Vehicle Performance
19/3/2026 – 20/3/2026	Week 4	NO Class Holiday Break
26/3/2026 – 27/3/2026	Week 5	Introduction to Geometric Design of Highways
2/4/2026 – 3/4/2026	Week 6	Design of Horizontal Curves
9/4/2026 – 10/4/2026	Week 7	Design of Horizontal Curves
16/4/2026 – 17/4/2026	Week 8	Design of Horizontal Curves
23/4/2026 – 24/4/2026	Week 9	NO Class on 23rd of Apr 2026 Recap of Mid-term Exam
30/4/2026 – 1/5/2026	Week 10	Mid-Term Exam on 30th Apr NO Class on 1st of May 2026
7/5/2026 – 8/5/2026	Week 11	Design of Vertical Curves
14/5/2026 – 15/5/2026	Week 12	NO Class for Spring Break 14-15 May 2026
21/5/2026 – 22/5/2026	Week 13	Design of Vertical Curves
28/5/2026 – 29/5/2026	Week 14	NO Class Holiday Break
4/6/2026 – 5/6/2026	Week 15	Design of Vertical Curves Roadside Design Elements
11/6/2026 – 12/6/2026	Week 16	Fundamentals of Traffic Flow & Class Recap
17/6/2026 – 30/6/2026	Final Exams	Final Exams