

California Traffic Engineering License Exam Review (TE-29)

Fall 2022 Course Outline

California Traffic Engineer Exam

http://www.bpelsq.ca.gov/applicants/plan_traffic.pdf

October 17-31, 2022

https://www.bpelsq.ca.gov/applicants/exam_schedule_final_filing_dates.pdf

Traffic Examination Reference Materials <https://www.bpelsq.ca.gov/applicants/trafrefs.shtml>

Session 1 – Tuesday, September 6, 2022 5:00PM – 6:30PM

Instructors: Tech Transfer Staff & All Instructors

- 5:00PM: Course Introduction & Overview
- 5:05PM: Introduction of Instructors
- 5:20PM: Getting Familiar with the Course
 - Course Materials
 - Canvas LMS Tutorial/Course Recordings
 - Assistance from Tech Transfer Staff
- 5:30PM: California Traffic PE Exam Resources
 - Navigating <http://bpelsq.ca.gov/>
 - Test Preparation Strategies
- 5:40PM: Test-taking Strategies
 - Stress Management
 - Time Management
 - Resources: What to Bring
- 5:50PM: Getting the Most from the Course
- 6:00PM: Q&A

Session 2 – Thursday, September 8, 2022 5:00PM – 7:30PM

Instructor: Obaid Khan

- Traffic Modeling/Estimating Traffic Volumes
- Traffic Impact Analysis:
 - Trip Generation
 - Trip Distribution
 - Trip Assignments
 - Pass-By Trips
 - Diverted Trips

Session 3 – Tuesday, September 13, 2022 5:00PM – 7:30PM

Instructor: Obaid Khan

- Parking Analysis:
 - Parking Generation
 - Parking Demand
 - Parking Studies
- Parking Facilities and Design:
 - Off-Street
 - On-Street
- Parking Regulation & Policies
- Shared Parking

Session 4 – Thursday, September 15, 2022 5:00PM – 7:30PM

Instructor: Joy Bhattacharya

- Level of Service (LOS)/Capacity Analyses:
 - Vehicle LOS
 - Pedestrian LOS
 - Bicycle LOS
 - Transit LOS
- VMT vs LOS

Session 5 – Tuesday, September 20, 2022 5:00PM – 7:30PM

Instructor: Tom Mericle

- Geometric Design of Roadway & Transportation Facilities
 - Vertical and Horizontal Alignments
 - Driveways
 - Intersections
 - Channelization Designs for Turning Movements
 - Roundabouts
 - Roadway Improvements
 - Interchanges

Session 6 – Thursday, September 22, 2022 5:00PM – 7:30PM

Instructor: Tom Mericle

- Engineering and Traffic Surveys
 - Speed-Zone Surveys
 - Traffic Engineering Speed Setting

Session 6 – Thursday, September 22, 2022 5:00PM – 7:30PM (continued)

Instructor: Tom Mericle

- Traffic Collisions
 - Techniques for Analyzing Collisions
 - Collision Diagrams
 - Collision Rates
- Traffic Safety Systems
 - Clear Recovery Zone
 - Guardrail
 - Barriers
- Mid-Course Evaluation

Session 7 – Tuesday, September 27, 2022 5:00 – 7:30PM

Instructor: Joy Bhattacharya

- Traffic Signal Design:
 - Warrants
 - Features, Standards & Specifications
 - Layout
 - Modifying Signal Hardware
- Street/Roadway Lighting
- Traffic Index

Session 8 – Thursday, September 29, 2022 5:00PM – 7:30PM

Instructor: Tom Mericle

- Traffic Control Devices
- Roadway Signing
 - Regulatory Sign Warrants and Placement
 - Warning Signs
 - Parking Signs
- Pavement Markings/Striping
- Temporary Traffic Controls

Session 9 – Tuesday, October 4, 2022 5:00PM – 7:30PM

Instructor: Joy Bhattacharya

- Traffic Signal Operations:
 - Timing/Phasing
 - Coordination
- Intelligent Transportation Systems

Session 10 – Thursday, October 6, 2022 5:00PM – 7:30PM

Instructor: Obaid Khan

- Traffic Calming
- Access Management
- Surface Transit Accommodations
- Cost-Benefit Evaluation

Session 11 – Tuesday, October 11, 2022 5:00PM – 7:30PM

Instructor: Obaid Khan

- Bicycle Facilities Design
 - Signing and Marking
 - Bicycle Facilities Improvements
- Pedestrian Facilities Design
 - Signing and Marking
 - ADA Compliance
- School Zones

Session 12 – Thursday, October 13, 2022 5:00PM – 6:00PM

Instructors: Tech Transfer Staff & All Instructors

- Q&A (All Instructors)
 - Joy Bhattacharya
 - Obaid Khan
 - Tom Mericle
- Final Course Evaluation (post-training)