California Traffic Engineering License Exam Review (TE-29)

Fall 2020 Course Outline

- California Traffic Engineer Exam
  [https://www.bpelsg.ca.gov/applicants/plan_traffic.pdf](https://www.bipelsg.ca.gov/applicants/plan_traffic.pdf)

- October 15-30, 2020
  [https://www.bpelsg.ca.gov/applicants/exam_schedule_final_filing_dates.pdf](https://www.bipelsg.ca.gov/applicants/exam_schedule_final_filing_dates.pdf)


**Session 1 – Monday, August 17, 2020 5:00PM – 6:30PM**
Instructors: Tech Transfer Staff & All Instructors

- 5:00PM: Course Introduction & Overview
  - Course Materials
  - Canvas LMS Tutorial
  - Assistance from Tech Transfer Staff
- 5:15PM: California Traffic PE Exam Resources
  - Navigating [http://bpelsg.ca.gov/](http://bpelsg.ca.gov/)
  - Test Preparation Strategies
- 5:30PM: Test-taking Strategies
  - Stress Management
  - Time Management
  - Resources: What to Bring
- 5:50PM: Introduction of Instructors
- 6:00PM: Q&A

**Session 2 – Thursday, August 20, 2020 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 – Monday, August 24, 2020 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 4 – Thursday, August 27, 2020 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 5 – Monday, August 31, 2020 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 3, 2020 5:00PM – 7:30PM
Instructor: Tom Mericle
- Engineering and Traffic Surveys
  - Speed-Zone Surveys
  - Traffic Engineering Assessments
  - Field Investigations of Roadway Conditions
Session 6 – Thursday, September 3, 2020 5:00PM – 7:30PM (continued)
Instructor: Tom Mericle
  • Traffic Collisions
    • Collision Diagrams
    • Collision Rates
    • Techniques for Analyzing Collisions
  • Mid-Course Evaluation

Session 7 – Thursday, September 10, 2020 5:00 – 7:30PM
Instructor: Tom Mericle
  • Safety and Traffic Control Devices
  • Roadway Signing
    • Regulatory Sign Warrants and Placement
    • Warning Signs
    • Parking Signs
  • Pavement Markings/Striping
  • Temporary Traffic Controls

Session 8 – Monday, September 14, 2020 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 9 – Thursday, September 17, 2020 5:00PM – 7:30PM
Instructor: Joy Bhattacharya
  • Traffic Signal Design:
    • Warrants
    • Features, Standards & Specifications
    • Layout
    • Modifying Signal Hardware
  • Street/Roadway Lighting
**Session 10 – Monday, September 21, 2020 5:00PM – 7:30PM**
Instructor: Obaid Khan
- Traffic Calming
- Access Management
- Surface Transit Accommodations
- Cost-Benefit Evaluation

**Session 11 – Thursday, September 24, 2020 5:00PM – 7:30PM**
Instructor: Joy Bhattacharya
- Traffic Signal Operations:
  - Timing/Phasing
  - Coordination
- Intelligent Transportation Systems

**Session 12 – Monday, September 28, 2020 5:00PM – 7:30PM**
Instructors: Tech Transfer Staff & All Instructors
- Q&A (All Instructors)
  - Joy Bhattacharya
  - Obaid Khan
  - Tom Mericle
- Final Course Evaluation (post-training)