



TE-29 California Traffic Engineering License Exam Review Fall 2017 (Online) Course Agenda

(Revised: 2 June 2017)

[California Traffic Engineer Exam](#)

[October 26, 2017 \(Thursday\)](#)

[Traffic Examination Reference Materials](#)

Session 1: Wed, Sep 6, 5-7PM

Instructor: Tech Transfer Staff & Instructors

- 5:00PM: Course Introduction & Overview
 - Course Materials
 - Canvas LMS Tutorial
 - Assistance from Tech Transfer Staff
- 5:30PM: California Traffic PE Exam Resources
 - Navigating <http://bpelsg.ca.gov/>
 - Test Preparation Strategies
- 6:00PM: Introduction of Instructors
- 6:30PM: Q&A

Session 2: Mon, Sep 11, 5-7PM

Instructor: **Obaid Khan**

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

References:

- 2010 HCM, 5th Edition
- ITE Trip Generation Manual, 9th Edition, 2014
- Caltrans HDM, 6th Edition
- ITE Manual of Transportation Engineering Studies, 2nd Edition
- ITE Transportation Planning Handbook, 3rd Edition

Session 3: Wed, Sep 13, 5-7PM

Instructor: **Joy Bhattacharya**

- Level of Service (LOS)/Capacity Analyses:

- o Vehicle LOS
- o Pedestrian LOS
- o Bicycle LOS
- o Transit LOS
- VMT vs LOS

Reference:

- 2010 HCM, 5th Edition

Session 4: Mon, Sep 18, 5-7PM**Instructor: Rafat Raie**

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

References:

- ITE Parking Generation Manual, 4th Edition, 2010
- ITE Manual of Transportation Engineering Studies, 2010, 2nd Edition
- Caltrans HDM, 6th Edition
- CAMUTCD 2014

Session 5: Wed, Sep 20, 5-7PM**Instructor: Crystal Killian**

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

References:

- 2010 HCM, 5TH Edition
- CAMUTCD 2014
- ITE Manual of Transportation Engineering Studies, 2010, Second Edition

Session 6: Mon, Sep 25, 5-7PM**Instructor: Crystal Killian**

- Engineering and Traffic Surveys
 - Speed-Zone Surveys
 - Traffic Engineering Assessments
 - Field Investigations of Roadway Conditions
- Traffic Collisions
 - Collision Diagrams
 - Collision Rates
 - Techniques for Analyzing Collisions
- Benefit/Cost Analysis
- Mid-Course Evaluation

References:

- CAMUTCD 2014
- ITE Manual of Transportation Engineering Studies, 2010, Second Edition

Session 7: Wed, Sep 27, 5-7PM**Instructor: Crystal Killian**

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

References:

- CAMUTCD 2014
- Caltrans Standard Plans, 2010 Edition

Session 8: Mon, Oct 2, 5-7PM**Instructor: Obaid Khan**

- Bicycle Facilities Design
 - Signing and Marking
 - Bicycle Facilities Improvements
- Pedestrian Facilities Design
 - Signing and Marking-

- o ADA Compliance
- School Zones

References:

- Caltrans HDM, 6th Edition
- CAMUTCD 2014
- Caltrans Standard Plans, 2010 Edition

Session 9: Wed, Oct 4, 5-7PM**Instructor: Joy Bhattacharya**

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

References:

- CAMUTCD 2014
- ITE Manual of Traffic Signal Design, 1998, 2nd Edition

Session 10: Mon, Oct 9, 5-7PM**Instructor: Obaid Khan**

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

References:

- ITE Transportation Planning Handbook, 2009, 3rd Edition
- ITE Manual of Transportation Engineering Studies, 2010, 2nd Edition
- Caltrans Standard Plans, 2010 Edition

Session 11: Wed, Oct 11, 5-7PM**Instructor: Joy Bhattacharya**

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

References:

- CAMUTCD 2014
- FHWA Signal Timing Manual, 2008



Session 12: Mon, Oct 16, 5-7PM

Instructor: Tech Transfer Staff & Instructors

- Test-taking Strategies
 - Stress Management
 - Time Management
 - Resources: What to Bring
- Q&A
 - Joy Bhattacharya: 5:00-6:00PM
 - Obaid Khan: 5:30-6:30PM
 - Rafat Raie: 5:30-6:30PM
 - Crystal Killian: 6:00-7:00PM
- Final Course Evaluation (post-training)