CONCURRENT CE-MS/MCRP WITH SPECIALIZATION IN TRANSPORTATION PLANNING

City and Regional Planning
Architecture & Environmental Design Bldg. (05), Room 313
Phone: 805.756.1315
https://planning.calpoly.edu

Civil & Environmental Engineering
Engineering Bldg. (13), Room 266
Phone: 805.756.2947
https://ceenve.calpoly.edu

Program name: Specialization in Transportation Planning
Program type: Concurrent CE-MS/MCRP

The Concurrent CE-MS/MCRP with Specialization in Transportation Planning is a joint interdisciplinary program between the Civil and Environmental Engineering Department in the College of Engineering and the City and Regional Planning Department in the College of Architecture and Environmental Design. Participation in the program requires enrollment in both Colleges. Participants successfully completing the program are awarded both the Master of Science in Civil and Environmental Engineering (CE-MS) and the Master of City and Regional Planning (MCRP) with a Specialization in Transportation Planning.

Program Learning Objectives

After successfully completing the Concurrent CE-MS/MCRP with Specialization in Transportation Planning program, students will be able to:

**Foundational skills**
1. Demonstrate an understanding of the historical, theoretical, legal, and methodological foundations of planning and engineering
2. Effectively represent and communicate technical and policy information

**Methodology**
1. Gather, organize, analyze and present planning and engineering information
2. Transform data and information into knowledge for action
3. Critically assess and apply scientific research

**Integrative skills**
1. Integrate and apply the necessary skills and knowledge to address complex planning and engineering problems
2. Develop and manage a design and planning process
3. Work with a variety of audiences: multiple publics, officials, and decision-makers

**Professional skills**
1. Reflect upon, critique, and evolve the practice of planning and engineering
2. Address issues of sustainability, diversity, and environmental and social justice
3. Practice in accordance with the AICP Code of Ethics and the NSPE Code of Ethics for Engineers
4. Apply best practices and develop novel approaches to solving transportation planning and engineering problems

Degree Requirements and Curriculum

Total for Concurrent Degree: 90 units minimum

- **Total CRP units:** 52
- **Total CE units:** 30
(not including thesis/project)

Double Counting of Units

This concurrent degree will allow for 27 units to be double-counted for students earning both CE-MS + MCRP (90 units total for both degrees) as a concurrent program.

**Required Courses**

**First Year Core**

- CRP 501 Foundations of Cities and Planning 4
- CRP 504 Sustainable Communities 4
- CRP 510 Planning Theory 4
- CRP 513 Planning Research and Analysis 4
- CRP 516 Demographic and Analytic Tools 4
- CRP 525 Plan Implementation 4
- CRP 553 Project Planning and Design Studio 4

**Second Year**

- CRP 518 Policy Development 4
- CRP 530 Planning Agency Management 4
- CRP 535 Land Use and Planning Law 4
- CRP 552 Community and Regional Planning Studio I 4
- CRP 554 Community and Regional Planning Studio II 4

Select one of the following options: 4-9

- CRP 556 Community and Regional Planning Studio III (4)
- CRP 596 Professional Project (2, 2, 2)
- CRP 599 Thesis (2, 2, 2)
- CE/ENVE 599 Design Project (Thesis) (6-9)

**Specialization: Transportation Planning & Engineering**

- CE 523 Transportation Systems Planning 4
- or CE 421 Traffic Engineering
- CE 527 Sustainable Mobility 4
- CRP 435 Transportation Theory 4

**Concurrent CE-MS**

- CE 422 Highway Geometrics and Design 4
- CE 526 Transportation Safety 4
- CE 591 Graduate Seminar I 1
- CE 592 Graduate Seminar II 1

Select from the following (no double counting): 12-16

- CE 423 Intelligent Transportation Systems
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CE 424</td>
<td>Public Transportation</td>
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<tr>
<td>CE 429</td>
<td>Highway Pavement Designs</td>
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<td>CE 525</td>
<td>Airport Planning and Design</td>
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<td>CE 528</td>
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<td>CE 529</td>
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<td>CRP 470</td>
<td>Selected Advanced Topics</td>
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<td>ENVE 411</td>
<td>Air Pollution Control</td>
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Total units: 90