

Master's of Science in Civil Engineering Program Plan Transportation Engineering

Thesis Option

- 33 credits of coursework
- 9 credits of CEE 700 - Master's Thesis

Research Paper Option

- 39 credits of coursework
- 3 credits of CEE 600 - Research Report

Coursework Option

- 42 credits of coursework

General Degree Requirements (42 total credits)

- 30 credits of course work
- 3 credits of CEE 500 seminar
- 9 credits CEE 700 master's thesis
- 18 credits minimum 500 level coursework
- 18 credits min of 400-500 coursework taken for numeric grade
- All CET coursework (except seminars) taken for numeric grade
- 3 credits minimum outside CEE
- 3.0 minimum cumulative GPA overall
- 3.0 minimum cumulative GPA in CET coursework
- 2.7 minimum grade for a course to count
- 499 credits do not count towards a graduate degree
- 300 and below coursework does not count towards a graduate degree
- 6 year max to complete degree (including official On Leave status)
- 6 credits maximum of approved transfer credits
- 3 credits of CEE 600 independent study do not count

Required Coursework

All students in Transportation are required to take: CET 584 (prev CEE 584) Analytical Methods in Transportation or alternative (see faculty adviser for alternative options)

Planning course

- CET 580 (prev CEE 580) Urban Transportation and Planning (4)
- or*
- CEE 581 (prev CEE 581) Travel Demand Forecasting (4)

Operations & ITS

- CET 590 (prev CEE 590) Traffic Systems and Operations (3)
- or*
- CET 512 (prev CEE 599) Transportation and Data Management (3)

Freight and Logistics

- CET 591 (prev CEE 591) Freight Transportation (3)
- or*
- CET 587 (prev CEE 587) Global Trade, Trans, and Log Management (4)

Suggested Electives

The remaining course requirements for the MSCE degree can be satisfied by any 5XX and some 4XX courses in the CESG program, as well as a variety of relevant courses from other departments at the UW. Students are encouraged to explore the availability of these courses and decide on an individual plan of study that balances depth and breadth, in line with the student's career goals, with guidance and approval from their faculty adviser.

Note: This is not a comprehensive list but rather suggestions for some relevant departments. Refer to the UW Time Schedule or the corresponding department for course offering details. Students should always confirm their elective choices with their faculty adviser.

Transportation Suggested Electives

- CEE 404 Infrastructure Construction (4)
- CEE 410 Traffic Engineering Fundamentals (3)
- CEE 421 Pavement Design and Construction (4)
- CEE 441 Transportation & Construction Capstone (5)
- CEE 498 Roadway Geometric Design (4)
- CEE 498 Traffic Simulation (3)
- CET 582 (prev CEE 580) Intelligent Transportation Systems (3)
- CET 583 (prev CEE 583) Transportation Energy and Sustainability (3)
- CET 585 (prev CEE 585) Analytical Methods in Transportation II (3)
- CET 586 (prev CEE 586) Pedestrian Travel, Land Use, and Urban Form (3)
- CESI 588 (prev CEE 588) Energy, Infrastructure, and the Environment (3)
- CET 589 (prev CEE 589) Transit Systems Planning (3)
- CET 594 (prev CEE 599) Travel Survey Methods (3)

Suggested Electives From Other Departments

- Econ 482 Economic Theory and Practice
- GEOG 426 Advanced Quantitative Methods
- INDE 424 Simulation
- INDE 521 Quality Control in Manufacturing
- Stat 421 Applied Statistics and Experimental Design
- Stat 423 Applied Regression and Analysis of Variance