GRADUATE CERTIFICATE IN TRANSPORTATION ENGINEERING

The graduate certificate in the field of transportation engineering is particularly appropriate for those who wish to gain specialized knowledge in either intelligent transportation systems and congestion mitigation or transportation safety.

Students who successfully complete the graduate certificate in structural engineering may opt to continue towards a master’s degree in the Civil and Environmental Engineering department. All courses completed by the student in the graduate certificate program with a grade of B or better can be transferred to the master’s degree program.

Visit the program website (https://www.cee.seas.gwu.edu/transportation-engineering-graduate-certificate-program) for additional program information.

REQUIREMENTS

The following requirements must be fulfilled: 15 credits, including 9 credits in required courses and 6 credits in elective courses in one selected track.

Intelligent Transportation Systems and Congestion Mitigation Track

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<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td></td>
<td><strong>Required</strong></td>
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<tr>
<td>CE 6707</td>
<td>Systems Dynamics Modeling and Control</td>
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<tr>
<td>CE 6721</td>
<td>Traffic Engineering and Highway Safety</td>
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<tr>
<td>CE 6722</td>
<td>Intelligent Transportation Systems</td>
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<tr>
<td>CE 6800</td>
<td>Special Topics (Advanced Theory in Traffic Flow)</td>
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<tr>
<td>CE 6800</td>
<td>Special Topics (Advanced Demand Modeling)</td>
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<td><strong>Electives</strong></td>
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<tr>
<td>CE 6101</td>
<td>Numerical Methods in Engineering</td>
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<tr>
<td>CE 6102</td>
<td>Application of Probability Methods in Civil Engineering</td>
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<tr>
<td>CE 6210</td>
<td>Introduction to Finite Element Analysis</td>
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<tr>
<td>CE 6701</td>
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Transportation Safety Track

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<tr>
<td>CE 6350</td>
<td>Introduction to Biomechanics</td>
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<tr>
<td>CE 6702</td>
<td>Vehicle Dynamics</td>
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<td>CE 6703</td>
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<td>CE 6704</td>
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<tr>
<td>CE 6705</td>
<td>Nonlinear Finite Element Modeling and Simulation</td>
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<tr>
<td>CE 8330</td>
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<td>CE 8380</td>
<td>Advanced Biomechanics</td>
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