

**GRADUATE MAJOR CHANGE BULLETIN NO. 9, Addendum 1**

**Summer 2023**

**Faculty Senate approved July 7, 2023**

The courses listed below reflect the graduate major curricular changes approved by the Graduate Studies Committee since approval of the last Graduate Major Change Bulletin. All changes are underlined. Deletions are crossed out. The column to the far right indicates the date each change becomes effective.

<b>Subject</b>	<b>Course Number</b>	<b>New Revise Drop</b>	<b>Current</b>	<b>Proposed</b>	<b>Effective Date</b>
<b>CE</b>	<b>516</b>	<b>New</b>	--N/A--	<b>Life Cycle Assessment of Transportation Infrastructure 3</b> Pavement life cycle, life cycle cost analysis, and other issues related to pavement durability and sustainability. Recommended preparation: CE 211 or equivalent. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	<b>8-23</b>
<b>CE</b>	<b>520</b>	<b>New</b>	--N/A--	<b>Climate-Resilient Infrastructure Engineering 3</b> Techniques and current engineering practices related to climate change; engineering through life cycle of planning, designing, construction, maintenance, and operation activities. Recommended preparation: CE 317 or equivalent. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	<b>8-23</b>
<b>CE</b>	<b>545</b>	<b>New</b>	--N/A--	<b>Stochastic Analysis and Modeling for Engineers 3</b> Sources of uncertainty in modeling and data analysis of natural processes and concepts and methods used to quantify and manage uncertainty (e.g., Bayesian statistics, Monte Carlo, and data mining and assimilation); skills for representing knowledge and judgment, communicating risk, and improving decision-making. Typically offered Fall.	<b>1-24</b>