

**GRADUATE MAJOR CHANGE BULLETIN NO. 3****SPRING 2021****Faculty Senate approved January 21, 2021**

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. The course information under the heading titled *Current* will show strikethroughs for deletions, and the heading titled *Proposed* will show underlines for additions. 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>HORT</b>	<b>522</b>	<b>New</b>	<del>--N/A--</del>	<b>Data Analysis in Systems Biology 3</b> Methods and modeling of biological data analysis including computer skills, network science, and hypothesis development as applied to gene co-expression, regulatory, protein-protein interaction, and metabolic network models. Recommended preparation: Introductory coursework covering topics of general statistics, genomics, and protein structure and function. Typically offered Fall.	<b>8-21</b>
<b>ME</b>	<b>574</b>	<b>New</b>	<del>--N/A--</del>	<b>Design for Additive Manufacturing 3</b> Design considerations and techniques to improve the performance for parts and components fabricated by additive manufacturing, including restrictive design considerations and opportunistic design. Recommended preparation: Basic knowledge in materials science and manufacturing. Typically offered Spring.	<b>8-21</b>
<b>MSE</b>	<b>504</b>	<b>New</b>	<del>--N/A--</del>	<b>Electrochemical Energy Systems 3</b> Principles of electrochemical systems and applications in energy storage/conversion devices. Recommended preparation: Basic knowledge of chemistry, physics, and materials. Typically offered Even Years - Fall.	<b>8-21</b>