



MEMORANDUM

To: Executive Committee of Faculty Council (November 14, 2023)
 Faculty Council (December 7, 2023)

From: Professor Lisa Romkey
 Chair, Engineering Graduate Education Committee (EGEC)

Date: November 7, 2023

Re: Engineering Graduate Education Committee Information Update

REPORT CLASSIFICATION

This is a routine or minor policy matter that has been approved by the Engineering Graduate Education Committee (EGEC). It will be considered by the Executive Committee for approval and forwarding to Faculty Council for information.

NEW COURSES APPROVED

<p>MIE1520</p>	<p>Learning with Graphs and Sequences: Complex data in a variety of applications can often lend themselves to a sequence or graph representation. In recent years, many tools and techniques were developed to efficiently learn from sequence and graph data. In particular, specialized deep neural network architectures, such as graph neural networks and transformers, have obtained state-of-the-art performance in tasks such as natural language processing and recommender systems. This course will provide students with advanced conceptual, theoretical, and implementational skills for developing machine learning approaches for processing sequences and graphs. The course will cover the design and training of both fundamental models and recent state-of-the-art models, and will prepare student to conduct research that involves the development or application of machine learning techniques for sequences or graph data. Knowledge of machine learning, algorithms, and programming is required, while knowledge of deep learning is recommended.</p>
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RECOMMENDATION FOR FACULTY COUNCIL

For information.