

TO: The Engineering Faculty
FROM: The Faculty of the School of Materials Engineering
DATE: March 18, 2024
RE: Fast track prerequisite change for MSE 44500

The faculty of the School of Materials Engineering has approved the following change to the prerequisites for MSE 44500. This action is now submitted to the Engineering Faculty with a recommendation for approval.

From: **MSE 44500 Materials Engineering Systems Analysis and Design**
Prerequisites: MSE 33000 and MSE 34000,
Concurrent prerequisite MSE 43000

Catalog Description. Integration of materials engineering core coursework with statistical, economic and environmental considerations for analysis and design of systems. Analysis of primary materials processing operations using mathematical and statistical models for predicting interactive effects and process optimization. Specification of materials and processes for mechanical designs, incorporating properties assessment and tradeoffs, cost analysis, and performance optimization with multiple constraints.

To: **MSE 44500 Materials Engineering Systems Analysis and Design**
Prerequisites: MSE 33000
Concurrent prerequisite MSE 34000 and MSE 43000

Catalog Description. Integration of materials engineering core coursework with statistical, economic and environmental considerations for analysis and design of systems. Analysis of primary materials processing operations using mathematical and statistical models for predicting interactive effects and process optimization. Specification of materials and processes for mechanical designs, incorporating properties assessment and tradeoffs, cost analysis, and performance optimization with multiple constraints.

Reason: With recent changes to the course, MSE 340 as a concurrent prerequisite is sufficient to meet the course learning objectives.



David F. Bahr, Professor and Head
School of Materials Engineering