

## BUSINESS MATH IN A DATA DRIVEN WORLD

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**Abstract:** This proposal from the Departments of Management and Mathematics at SIUC seeks to redesign a critical gateway course in light of changing student needs and pedagogical innovations. Experience from the proposed redesign would constitute a model for design and redesign of other courses in the future. Critical changes in student needs include the increasing demand that business decisions respond to quantitative data. Pedagogical advances include the prioritization of conceptual understanding, meaningful use of technology, and active learning activities. The redesign would substantially improve student success in the course.

Specifically, we propose to re-design MATH 139 and create a state-of-the-art course that integrates expert delivery of foundational curriculum, creative use of technology and methods that is coherent with the curriculum, hands-on project-based work, and presentations of analyses that foster communication and leadership skills. The proposal objectives are consistent with “hands-on learning experiences through research, creative activities, internships and service learning” (Dunn, 2019). It is envisioned that the methodologies developed in this proposal can be extended to similar interdisciplinary courses, such as MATH 140 and to attract students from other departments across campus which will positively impact SIUC enrollment.

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