OPERATIONS RESEARCH
(OPRE)

OPRE 505 FUNDAMENTALS OF STATISTICS (1.5)
Emphasizes applications of descriptive statistics in business. Topics include basic probability concepts, summary measures of location and dispersion, discrete and continuous probability distributions, sampling distribution of mean, and introductions to confidence interval estimation and hypothesis testing. Excel-based software is used for computer implementation. Prerequisite: Graduate standing.

OPRE 506 MANAGERIAL STATISTICS (1.5)
Emphasizes applications of inferential statistics in business. Topics include confidence interval estimation, hypothesis testing, analysis of variance, simple linear regression and an introduction to multiple regression. Excel-based software is used for computer implementation. Prerequisite: OPRE 505.

OPRE 605 BUSINESS ANALYTICS (1.5)
Explores business analytics and their applications to management decision-making for a range of business situations. Covers problem structuring; big data, data mining and optimization; computer simulation; decision analysis; and predictive modeling. Prerequisites: OPRE 505 and OPRE 506 or permission of the MBA program director.

OPRE 640 APPLIED MANAGEMENT SCIENCE (3)
Management science approaches in organizations, including modeling and rational approaches to decision-making and their contribution to organizational effectiveness. Emphasizes analysis and communication using real-world application and cases. Topics include linear programming and its extensions, integer programming, network problems and decision analysis as applied to tactical and strategic business decisions in functional areas and interfaces among these areas. Prerequisite: enrollment in MBA core courses (may be taken concurrently).