DECISION SCIENCES (DS)

Course numbers with the # symbol included (e.g. #400) have not been taught in the last 3 years.

DS 444 - Meaning of Entrepreneurship
Credits: 4
This course explores the idea and ideals of entrepreneurship, the creating of value through individual initiative, creativity and innovation. The idea of entrepreneurship is of significant relevance in the highly dynamic and competitive 21st century global economy. It is an idea that is important for students to understand and to critically consider and apply. Encourages the development of multiple views of entrepreneurship, and uses a broad, not just business, approach to the study as it engages students in the subject matter. Open to all majors.
Attributes: Environment,TechSociety(Disc); Inquiry (Discovery); Writing Intensive Course
Grade Mode: Letter Grading

DS 520 - Topics in Entrepreneurship/Decision Sciences
Credits: 4
Special topics in entrepreneurship, information systems and business analytics. Vary by semester.
Repeat Rule: May be repeated for a maximum of 8 credits.
Grade Mode: Letter Grading

DS 620 - Topics in Decision Sciences
Credits: 1-4
Special topics, vary by semester.
Repeat Rule: May be repeated for a maximum of 12 credits.
Grade Mode: Letter Grading

DS 650 - The Mel Rines Student Angel Investment Fund
Credits: 2
The Mel Rines Student Angel Investment Fund is a cross-disciplinary, undergraduate, student-managed private equity fund. The Fund allows students to learn angel and venture capital investment strategies through the first-hand experience of investing in start-up companies. Students evaluate entrepreneur pitches, conduct due diligence on potential investments, work with angel partners, and present to an investment committee their recommendations to invest capital. Students interested in joining the Fund must submit an application and undergo an interview process. Students in good standing may retake the course.
Repeat Rule: May be repeated for a maximum of 12 credits.
Grade Mode: Letter Grading

DS 662 - Programming for Business
Credits: 4
Introduces students to programming concepts. Covers fundamentals including functions, variable types, conditionals, and data structures. Students apply these concepts to a variety of business analytics problems including data collection, wrangling, reshaping, summarizing , and visualization.
Prerequisite(s): ADMN 410 with a minimum grade of C-.
Equivalent(s): DS 562
Grade Mode: Letter Grading

DS 671 - Data Visualization and Prescriptive Analytics
Credits: 4
The course focuses on Descriptive and Prescriptive Analytics. Students gain modeling and data analysis and visualization skills necessary to address a wide variety of business problems. In Descriptive Analytics, students learn principles of data visualization, data cleanup and wrangling, advanced data analysis and visualization tools, and dashboard design. In Prescriptive Analytics, students learn advanced spreadsheet modeling/programming, formulating and solving a variety of optimization problems, and performing sensitivity analysis.
Prerequisite(s): ADMN 410 with a minimum grade of C- and ADMN 510 with a minimum grade of C-.
Equivalent(s): DS 766
Grade Mode: Letter Grading

DS 673 - Database Management
Credits: 4
Provides students with the skills necessary to understand the database environment of the firm. Topics include data models, normalization, SQL, data warehouses, and nosQL databases. Students learn to design and implement moderately complex relational databases in multi-user, client/server environments.
Prerequisite(s): ADMN 410 with a minimum grade of C-.
Equivalent(s): DS 773
Grade Mode: Letter Grading

DS 720 - Topics in Decision Sciences II
Credits: 4
Introduces students to commonly used predictive analytics techniques and necessary programming with focus on regression analysis and model building. The course coverage is supported with real data applications and illustrations. The topics include linear and non-linear regression model building/selection, residual analysis, search algorithms, generalized linear models/classification, and clustering algorithms.
Repeat Rule: May be repeated for a maximum of 8 credits.
Grade Mode: Letter Grading

DS 741 - Private Equity/Venture Capital
Credits: 4
The focus is private equity in the context of financing innovation especially from the investor's perspective. This course covers screening entrepreneurial ideas and business plans through the spectrum of entrepreneurial financing stages from seed, start-up, later-stage financing, to acquisition/buyouts and IPOs. Students will research, discuss and present state-of-the-art analyses and practices and have exclusive access to PitchBook database that provides users intelligence on the private markets, angels, venture capital, mergers & acquisitions, and private companies.
Prerequisite(s): ADMN 570 with a minimum grade of C-.
Grade Mode: Letter Grading

DS 742 - Internship in Entrepreneurial and Management Practice
Credits: 4
Involves working for leading companies and dynamic entrepreneurs, as well as classroom instruction. The priority experiential, real-world, and real-time learning in the high-growth environment of entrepreneurial ventures. Focus on several topic areas, including venture capital.
Grade Mode: Letter Grading

DS 768 - Forecasting Analytics
Credits: 4
The course focuses on Predictive Analytics. Businesses and organizations need to be able to forecast effectively in order to make decisions. Students learn the background necessary to develop forecasts for real-world business situations. An applied, hands-on approach is used in the course. Students learn and use SAS to analyze data and fit models. Topics include regression analysis in forecasting, model building, residual checking, analysis of seasonal and cyclical trends, and times series models.
Prerequisite(s): ADMN 510 with a minimum grade of C-.
Grade Mode: Letter Grading

DS 772 - Predictive Analytics and Modeling
Credits: 4
The course introduces students to commonly used predictive analytics methods and necessary programming with a focus on regression analysis, classification, and model building. The course coverage is supported using real data applications and illustrations. The topics include linear and non-linear regression model building/selection, residual analysis, search algorithms, generalized linear models/classification, and applied machine learning methods for business use.
Prerequisite(s): ADMN 510 with a minimum grade of D-.
Grade Mode: Letter Grading

DS 774 - E-Business
Credits: 4
Covers the concepts, tools, and strategies for understanding the challenges and exploiting the opportunities associated with e-commerce/e-business. Students gain a comprehensive understanding of online payment systems, cyber security, e-commerce marketing and advertising, web development, and web and social media analytics. DS 562 or CS 405 is strongly recommended prior to taking this course.
Prerequisite(s): ADMN 410 with a minimum grade of C-.
Grade Mode: Letter Grading

DS 775 - Corporate Project Experience
Credits: 4
Provides real-life experience in organizations. Work in groups on information systems and/or business analytics projects identified by sponsoring organizations. Integrate concepts and skills learned in prior business, analytics, and information systems courses. Learn project management concepts, work with project management tools, and use presentation techniques. Two ISBA Electives required prior to taking this course.
Attributes: Writing Intensive Course
Prerequisite(s): DS 673 with a minimum grade of C-.
Grade Mode: Letter Grading

DS 799H - Honors Thesis in Decision Sciences
Credits: 4
Supervised research leading to the completion of an honors thesis or project in decision sciences; required for graduation from the honors program in business administration.
Attributes: Honors course
Repeat Rule: May be repeated for a maximum of 8 credits.
Grade Mode: Letter Grading