

Business Analytics (BUAN)

BUAN 505 Information Analytics and Visualization in Decision Making 3 Credits (3,0)

Exploration of the OODA Loop decision process; reduction, analysis, filtering, and abstracting of data into knowledge; presentation of knowledge in formats that support decision-making; analysis and visualization relationships examined in the context of business and organizational decision-making and decision support systems.

Course Offered at: Worldwide, Asia

BUAN 522 Business Analytics, Social Network and Web Analytics 3 Credits (3,0)

Application of techniques to identify important observations and patterns in data; use of data reduction, filtering, and analysis to identify and assess key business indicators; focus on the business rationale for analytics and the application of analytics in decision-making processes; exploration of soft or unstructured data from social media, search histories, and other non-traditional data sources.

Course Offered at: Worldwide, Asia

BUAN 523 Data Mining for Business Analytics 3 Credits (3,0)

Survey of methodologies useful for data mining in business analytics; guidance in identifying the data mining process from exploration to predictive techniques; focus on smarter search, filtering criteria, and applied AI algorithms (machine learning) to discover new knowledge from existing data.

Course Offered at: Worldwide, Asia

BUAN 524 Applied Business Intelligence and Analytics 3 Credits (3,0)

Business intelligence (BI) and analytics as both a process and a product; exploration of the impact of BI and analytics on corporate strategy, performance, and competitiveness; theoretical concepts and practical applications of BI and analytics; examination of predictive analytics techniques using SAS.

Course Offered at: Worldwide, Asia

BUAN 530 Business Analytics for Managers 3 Credits (3,0)

Using data to gain business insights and solve managerial problems; key performance indicators, data presentation tools, scorecards, and dashboards for evidence-based decision-making.

Course Offered at: Daytona Beach

BUAN 599 Special Topics in Business Analytics 1-6 Credit (1-6,0)

Individual, independent, or directed studies of selected topics in business analytics

Course Offered at: Daytona Beach, Prescott, Worldwide

BUAN 610 Airline Optimization and Simulation Systems 3 Credits (3,0)

Optimization models and simulation techniques in airline decision-making; technical aspects of modeling in network transportation systems, including scheduling, fleet assignment, aircraft routing, crew pairing, gate assignment, and irregular operations; discrete-event simulation models in scheduling.

Prerequisites: SCLM 511

Course Offered at: Daytona Beach

BUAN 612 Data Analytics for Aviation Business 3 Credits (3,0)

Methods, techniques, and analytical tools for handling large datasets in aviation; data collection, cleaning, standardization, mining, analysis, visualization, and reporting; descriptive, inferential, predictive, and prescriptive analytics in aviation and aerospace.

Prerequisites: BUAN 530

Course Offered at: Daytona Beach

BUAN 699 Special Topics in Business Analytics 1-6 Credit (1-6,0)

Individual, independent, or directed studies of selected topics in business analytics.

Course Offered at: Daytona Beach, Prescott

BUAN 730 Research Methods in Aviation and Aerospace I 3 Credits (3,0)

Conducting advanced scientific research with emphasis on the research process; development of scholarly research proposals; research questions, literature reviews, hypotheses, conceptual models, quantitative and qualitative methods, and data collection.

Course Offered at: Daytona Beach

BUAN 735 Research Methods in Aviation and Aerospace II 3 Credits (3,0)

Selected topics in quantitative, qualitative, and mixed research methodologies; advanced data collection, sampling, validity, reliability, research ethics, and academic paper preparation and publication processes.

Prerequisites: BUAN 730

Course Offered at: Daytona Beach

BUAN 740 Statistics and Business Data Analytics I 3 Credits (3,0)

Basic concepts and methods of probability and statistical inferences applied to business; advanced econometrics and statistical methods with hands-on experience using statistical software to analyze aviation and aerospace data.

Course Offered at: Daytona Beach

BUAN 745 Statistics and Business Data Analytics II 3 Credits (3,0)

Advanced statistical methods for business data analysis; mathematical concepts and application-focused problem-solving in empirical research; implementation of advanced statistical methods in business using software tools.

Prerequisites: BUAN 740

Course Offered at: Daytona Beach

BUAN 799 Special Topics in Business

Analytics 1-6 Credit (1-6,0)

Individual, independent, or directed studies of selected topics in business analytics.

Course Offered at: Daytona Beach, Prescott

BUAN 805 Statistics and Multivariate Analysis 3 Credits (3,0)

Advanced mathematical and statistical techniques for building and testing econometric models; solutions to data-centric problems; analysis using software like SPSS, EVIEWS, LIMDEP, and R; systematic reasoning to solve managerial problems and apply methods in empirical research.

Course Offered at: Daytona Beach

BUAN 810 Advanced Topics in Business

Quantitative Methods 3 Credits (3,0)

Overview of operations research and quantitative methods including mathematical programming, linear and integer optimization, search algorithms, metaheuristics, stochastic modeling, and simulation; applications in aviation business settings.

Course Offered at: Daytona Beach

BUAN 815 Seminars in Research Methods 3 Credits (3,0)

Advanced social science research with a focus on developing scholarly research proposals; evaluation of empirical research, research method selection, data collection, instrumentation, sampling, ethics, reliability, and validity assessment.

Course Offered at: Daytona Beach

BUAN 842 Doctoral Seminar in Survey

Development and Analysis 3 Credits (3,0)

Measurement and analysis of latent business phenomena using survey-based research; structural and measurement models; applied questionnaire design; data examination; statistical evaluation; structural equation modeling with partial least squares.

Course Offered at: Daytona Beach

BUAN 899 Special Topics in Business

Analytics 1-6 Credit (1-6,0)

Individual, independent, or directed studies of selected topics in business analytics.

Course Offered at: Daytona Beach, Prescott