

# BUSINESS ANALYTICS (BAN)

## BAN 5100 Professional Development in Business Analytics

**Prerequisites:** Admission to the MS in Business Analytics program or consent of director of MS in Business Analytics.

**Description:** Career and professional development of MS in Business Analytics students. A blend of guest speakers, projects, and exercises used to better prepare students for advanced business analytics careers. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.

**Credit hours:** 1-6

**Contact hours:** Contact: 1-6 Other: 1-6

**Levels:** Graduate

**Schedule types:** Independent Study

**Department/School:** Marketing

## BAN 5400 Practicum in Business Analytics

**Prerequisites:** Consent of director of MS in Business Analytics and satisfactory completion of six hours of BAN 5000- or MKTG 5000-level courses.

**Description:** Professionally supervised experience in business analytics projects for which the student assumes a degree of professional responsibility. Activities approved in advance by the instructor and must reflect graduate level analysis. May consist of full or part-time business analytics experience, on-campus or in industry, or both, either individually or as a responsible group member. Periodic reports, both oral and written, required as specified by the instructor. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.

**Credit hours:** 1-3

**Contact hours:** Contact: 1-3 Other: 1-3

**Levels:** Graduate

**Schedule types:** Independent Study

**Department/School:** Marketing

**Additional Fees:** Business Graduate Program fee of \$6 per credit hour applies.

## BAN 5511 Web Analytics and Digital Marketing

**Prerequisites:** Admission in MS in Business Analytics or consent of director of MS in Business Analytics or consent by instructor.

**Description:** Learn how to use web analytics tools and techniques to improve digital marketing.

**Credit hours:** 1

**Contact hours:** Lecture: 1 Contact: 1

**Levels:** Graduate

**Schedule types:** Lecture

**Department/School:** Marketing

## BAN 5521 GIS Applications in Marketing Analytics

**Prerequisites:** Admission in MS in Business Analytics or consent of director of MS in Business Analytics or consent by instructor.

**Description:** Learn how to use geographical information systems (GIS) as a methodological tool and analyze spatial data to make better marketing decisions.

**Credit hours:** 1

**Contact hours:** Lecture: 1 Contact: 1

**Levels:** Graduate

**Schedule types:** Lecture

**Department/School:** Marketing

## BAN 5530 Consulting in Marketing Analytics

**Prerequisites:** Admission in MS in Business Analytics or consent of director of MS in Business Analytics or consent by instructor.

**Description:** Learn how analytics consultants must communicate with clients to establish relationships, build trust, propose solutions, handle objections and otherwise effectively manage the relationship aspect of the engagement. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.

**Credit hours:** 1-3

**Contact hours:** Lecture: 1-3 Contact: 1-3

**Levels:** Graduate

**Schedule types:** Lecture

**Department/School:** Marketing

## BAN 5541 Using R in Marketing Analytics

**Prerequisites:** Admission in MS in Business Analytics or consent of director of MS in Business Analytics or consent by instructor.

**Description:** Learn how to use the R computing environment (and language) for analytics applications. The focus of the course will be on the usage of R and various R packages for analytics applications and not the theory or discussion behind various analytics techniques.

**Credit hours:** 1

**Contact hours:** Lecture: 1 Contact: 1

**Levels:** Graduate

**Schedule types:** Lecture

**Department/School:** Marketing

## BAN 5551 Optimization Applications in Marketing Analytics

**Prerequisites:** Admission in MS in Business Analytics or consent of director of MS in Business Analytics or consent by instructor.

**Description:** This course provides an introduction to practical applications of mathematical programming/operations research using SAS/OR.

**Credit hours:** 1

**Contact hours:** Lecture: 1 Contact: 1

**Levels:** Graduate

**Schedule types:** Lecture

**Department/School:** Marketing

## BAN 5560 Business Analytics Research and Communications

**Prerequisites:** MS BAN or MS BADS or consent of instructor.

**Description:** To be effective in today's business environment, an analyst needs to be able to translate business data into information to make better decisions. An effective analyst must also be able to communicate findings in verbal and written forms to a wide variety of audiences. This course introduces interactive techniques to learn and master multiple communication styles used in business analytics and research. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.

**Credit hours:** 1-6

**Contact hours:** Lecture: 1-6 Contact: 1-6

**Levels:** Graduate

**Schedule types:** Lecture

**Department/School:** Marketing

**BAN 5561 Customer Lifetime Value Models in Marketing**

**Prerequisites:** Admission into MSBAN program or, approval from MSBAN program director or, consent of instructor.

**Description:** The course will introduce mathematical, modeling, financial, and business/marketing concepts associated with implementing Customer Lifetime Value (CLV). Topics will cover the financial concepts and mathematical formulae for CLV calculations including common approaches to building the statistical/predictive models required for projecting future value. In addition, interpretation of CLV output and best practices for using CLV to improve business and marketing strategies will be discussed.

**Credit hours:** 1

**Contact hours:** Lecture: 1 Contact: 1

**Levels:** Graduate

**Schedule types:** Lecture

**Department/School:** Marketing

**BAN 5563 Strategic Marketing and Business Analytics**

**Prerequisites:** MS BAN or MS BADS or MBA or GCRT BADS or consent of instructor.

**Description:** The course is based on an international business stimulation where students work in groups to develop a business from scratch and manage it globally across multiple continents. It is designed to broaden students' understanding of international target market selection and positioning of brands in the global market, value creation in product design, cash flow planning, profitability analysis, production planning and inventory management by analyzing marketing and management data. The overarching goal of this course is for students to learn how to balance strategic versus tactical decisions by analyzing marketing and management data from the simulation.

**Credit hours:** 3

**Contact hours:** Lecture: 3 Contact: 3

**Levels:** Graduate

**Schedule types:** Lecture

**Department/School:** Marketing

**BAN 5733 Descriptive Business Analytics**

**Prerequisites:** MS BAN or MS BADS or GCRT BADS or consent of instructor.

**Description:** Learn how to describe and analyze business data using visualization and statistical tools. Topic coverage will include different types of graphs and plots, cross-tabs, variable associations, regression, ANOVA and other related models. An overview of basic probability concepts and statistical sampling techniques will also be provided. This course will primarily use SAS® Analytics platform to analyze data. Students may not take both MKTG 5733 or MKTG 5983 and BAN 5733 for degree credit.

**Credit hours:** 3

**Contact hours:** Lecture: 2 Lab: 2 Contact: 4

**Levels:** Graduate

**Schedule types:** Lab, Lecture, Combined lecture and lab

**Department/School:** Marketing

**Additional Fees:** Business Graduate Program fee of \$6 per credit hour applies.

**BAN 5743 Predictive Business Analytics**

**Prerequisites:** BAN 5733 or consent by instructor.

**Description:** Learn how to use predictive analytic tools such as logistic regression, neural networks, decision trees and other classification and prediction models to generate deeper business insights and to improve business decision making. This course will primarily use SAS® Analytics platform to analyze data. Students may not take both MKTG 5963 or MKTG 5743 and BAN 5743 for degree credit.

**Credit hours:** 3

**Contact hours:** Lecture: 2 Lab: 2 Contact: 4

**Levels:** Graduate

**Schedule types:** Lab, Lecture, Combined lecture and lab

**Department/School:** Marketing

**Additional Fees:** Business Graduate Program fee of \$6 per credit hour applies.

**BAN 5753 Advanced Business Analytics**

**Prerequisites:** BAN 5743 and MS BAN or MS BADS or GCRT BADS or consent by instructor.

**Description:** Learn how to use advanced modeling techniques such as Self Organizing Maps (SOM) and Kohonen Networks, two-stage models, survival models, credit scoring models, time series forecasting models, advanced text analytics etc. to improve business decision making. This course will primarily use SAS® Analytics platform to analyze data. Students may not take both MKTG 5883 and BAN 5753 for degree credit.

**Credit hours:** 3

**Contact hours:** Lecture: 2 Lab: 2 Contact: 4

**Levels:** Graduate

**Schedule types:** Lab, Lecture, Combined lecture and lab

**Department/School:** Marketing

**Additional Fees:** Business Graduate Program fee of \$6 per credit hour applies.

**BAN 5763 Advanced Marketing Research Analytics**

**Prerequisites:** BAN 5753 or consent by instructor.

**Description:** Learn how to properly use various multivariate data analysis techniques including multiple regression, MANOVA, Discriminant analysis, Clustering, MDS and Conjoint Analysis. Students may not take both MKTG 6413 and BAN 5763 for degree credit.

**Credit hours:** 3

**Contact hours:** Lecture: 2 Lab: 2 Contact: 4

**Levels:** Graduate

**Schedule types:** Lab, Lecture, Combined lecture and lab

**Department/School:** Marketing

**Additional Fees:** Business Graduate Program fee of \$6 per credit hour applies.

**BAN 5900 Advanced Practicum in Business Analytics**

**Prerequisites:** MS BAN or MS BADS and consent of instructor.

**Description:** Professionally supervised experience in advanced business analytics projects for which the student assumes a degree of professional responsibility. Activities approved in advance by the instructor and must reflect advanced graduate level analysis. May consist of full or part-time advanced business analytics experience, on-campus or in industry, or both, either individually or as a responsible group member. Periodic reports, both oral and written, required as specified by the instructor. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.

**Credit hours:** 1-6

**Contact hours:** Contact: 1-6 Other: 1-6

**Levels:** Graduate

**Schedule types:** Independent Study

**Department/School:** Marketing

**Additional Fees:** Business Graduate Program fee of \$6 per credit hour applies.