

Quantitative Methods Courses

Courses

QMB 2301. Fundamentals of Bus Statistics.

Fundamentals of Business Statistics: Introduction to the statistical techniques as applied to business data. Included are descriptive statistics, measures of central tendency and variation, probability distributions, sampling theory, hypothesis testing, and regression and correlation analysis. A major effort is devoted to computerized solution techniques to provide managerial information.

Department: Quantitative Methods

3 Credit Hours

3 Total Contact Hours

0 Lab Hours

3 Lecture Hours

0 Other Hours

Prerequisite(s): (MATH 1320 w/C or better) OR (MATH 1508 w/C or better) OR (MATH 1411 w/C or better) OR (MATH 1312 w/C or better) OR (MATH 2313 w/C or better) OR (MATH 2326 w/C or better) OR (MATH 2301 w/C or better) OR (BANM score between 4 and 5) OR (ACCL score between 081 and 120 AND BANM score between 4 and 5) OR (BANM score between 4 and 5 AND EPCM score between 081 and 120) OR (MATH 1411A w/C or better AND MATH 1411B w/C or better AND MATH 1411C w/C or better) OR (MATH 1508A w/C or better AND MATH 1508B w/C or better AND MATH 1508C w/C or better) OR (SXDG score of 1) OR (SXMA score of 1) OR (SXMN score of 1) OR (SXOI score of 1) OR (SXTR score of 1) OR (MATH 1310 w/C or better)

QMB 3301. Quantitative Methods in Bus.

Quantitative Methods in Business: Introduction to quantitative methods applied to business decision making. These methods include linear, integer, and goal programming, network analysis, and transportation linear programming. A major effort is devoted to computerized solution techniques to provide managerial information.

Department: Quantitative Methods

3 Credit Hours

3 Total Contact Hours

0 Lab Hours

3 Lecture Hours

0 Other Hours

Major Restrictions:

Restricted to majors of ACCT, BAMA, BSAD, CIS, ECON, FIN, GENB, INBU, INFS, IS, MGMT, MKT, OSCM, POM

Prerequisite(s): (QMB 2301 w/C or better) OR (STAT 3201 w/C or better) AND (ACCT 2301 w/C or better AND ACCT 2302 w/C or better) AND (ECON 2303 w/C or better AND ECON 2304 w/C or better) AND (MATH 2301 w/C or better) OR (MATH 1411) AND (QMB 2301 w/C or better)

QMB 3350. Business Analytics.

Business Analytics This course will teach students the basic principles and processes used in business analytics to analyze big data in business. Students will learn to explore data quality, visualize relationships between features, build basic predictive models, and evaluate predictions using R programming. This course will cover predictive modeling analytics and demonstrate how to move towards actions and decisions based on data insights. Classification models using nearest neighbor methods, Naive Bayes, and decision trees will be covered. Numeric forecasting using regression methods and black-box methods (neural networks) will also be implemented. Business analytics ethics and case studies will be discussed demonstrating predictive modeling in real- world businesses contexts. Upon successful completion of this course students will be able to build basic R programming models to answer big data questions.

Department: Quantitative Methods

3 Credit Hours

3 Total Contact Hours

0 Lab Hours

3 Lecture Hours

0 Other Hours

Prerequisite(s): (QMB 2301 w/C or better) OR (QMB 3456 w/C or better) AND (MATH 1320 w/C or better) OR (MATH 1508 w/C or better) OR (MATH 1411 w/C or better) OR (MATH 1312 w/C or better) OR (MATH 2313 w/C or better) OR (MATH 2326 w/C or better) OR (MATH 2301 w/C or better) OR (BANM score between 4 and 5) OR (ACCL score between 081 and 120 AND BANM score between 4 and 5) OR (BANM score between 4 and 5 AND EPCM score between 081 and 120) OR (MATH 1411A w/C or better AND MATH 1411B w/C or better AND MATH 1411C w/C or better) OR (MATH 1508A w/C or better AND MATH 1508B w/C or better AND MATH 1508C w/C or better) OR (SXDG score of 1) OR (SXMA score of 1) OR (SXMN score of 1) OR (SXOI score of 1) OR (SXTR score of 1) OR (MATH 1310 w/C or better)

QMB 3456. Actuarial Quant Methods I.

Actuarial Quantitative Methods I This course is the first class dealing with methodological issues pertaining to quantitative actuarial methods. It will cover (among other things): Basic Probability Concepts, Conditional Probability and Independence, Combinatorial Principles, Random Variables and Probability Distributions, and Expectation and Other Distribution Parameters.

Department: Quantitative Methods

3 Credit Hours

3 Total Contact Hours

0 Lab Hours

3 Lecture Hours

0 Other Hours

Prerequisite(s): (MATH 1312 w/C or better AND QMB 2301 w/C or better)

QMB 4456. Actuarial Quant Methods II.

Actuarial Quantitative Methods II This course is the second class dealing with methodological issues pertaining to quantitative actuarial methods. It will cover (among other things): Frequently used Discrete Distributions, Frequently used Continuous Distributions, Joint, Marginal, and Conditional Distributions, Transformations of Random Variables, Risk Management Concepts.

Department: Quantitative Methods

3 Credit Hours

3 Total Contact Hours

0 Lab Hours

3 Lecture Hours

0 Other Hours

Prerequisite(s): (QMB 3456 w/C or better)