

ECU COURSE CATALOG

2025-2026 BUSINESS ECONOMICS COURSES

BSEC-2603 Business and Economic Statistics 3 Credits

SUMMARIZING AND ANALYZING DATA FOR PRACTICAL USE IN SOLVING COMMONLY ENCOUNTERED ANALYTICAL PROBLEMS IN ACCOUNTING, BUSINESS OR ECONOMICS. COMPUTERIZED SOLUTION METHODS EMPHASIZED. STUDENTS PLANNING TO ENTER GRADUATE SCHOOL FOLLOWING GRADUATION ARE STRONGLY ADVISED TO TAKE MATH 1223, IN LIEU OF BSEC 2603. Required Previous: MATH-1513, MATH-1613 or MATH-2613 with a grade of C or higher or departmental approval.

BSEC-3013 Introduction to Econometrics 3 Credits

INTRODUCTION TO METHODS OF QUANTITATIVE ANALYSIS OF ECONOMIC DATA. REVIEWS BASIC STATISTICAL METHODS AND PROBABILITY DISTRIBUTION. TOPICS INCLUDE DATA MANAGEMENT USING PROFESSIONAL STATISTICAL SOFTWARE APPLICATIONS; MULTIPLE REGRESSION ANALYSIS; HYPOTHESIS TESTING UNDER CONDITIONS OF MULTICOLLINEARITY, HETEROSCEDASTICITY, AND SERIAL CORRELATION. Required Previous: BSEC-2603 with a grade of C or higher or departmental approval.

BSEC-3103 Foundations of Data Analytics 3 Credits

THIS COURSE INTRODUCES STUDENTS TO THE FUNDAMENTAL CONCEPTS OF DATA ANALYTICS FOR DECISION-MAKING IN BUSINESS. STUDENTS WILL EXPLORE THE CAPABILITIES AND CHALLENGES OF DATA-DRIVEN BUSINESS DECISION-MAKING. THE COURSE WILL INCLUDE HANDS-ON WORK WITH DATA AND SOFTWARE. TOPICS TO BE COVERED INCLUDE DATA PREPARATION AND MANIPULATION, DESCRIPTIVE, PREDICTIVE, AND PRESCRIPTIVE ANALYTICS, DECISIONS UNDER UNCERTAINTY, AND DECISION ANALYTICS TOOLS (CLUSTER ANALYSIS, CLASSIFICATION, AND LINEAR REGRESSION) Required Previous: BSEC-2603 with a grade of C or higher or departmental approval.

BSEC-4003 Advanced Data Analytics 3 Credits

STUDENTS WILL APPLY ANALYTICS TOOLS AND APPLICATIONS TO SOLVE REAL-LIFE BUSINESS PROBLEMS. IN ADDITION TO BASIC ANALYTICS TOOLS SUCH AS DESCRIPTIVE STATISTICS, DATA VISUALIZATION, CLUSTERING, AND CLASSIFICATION, STUDENTS WILL LEARN BASIC MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE TECHNIQUES. MULTI-VARIATE REGRESSION ANALYSIS, LOGISTIC REGRESSION, ANALYSIS OF VARIANCE (ANOVA AND MANOVA), TIME SERIES MODELS, AND ANALYSIS OF CATEGORICAL VARIABLES WILL BE DISCUSSED. STUDENTS WILL BE INTRODUCED TO Required Previous: BSEC-3103 or departmental approval

BSEC-5203 Data Analytics 3 Credits

THIS COURSE PROVIDES MBA STUDENTS WITH FOUNDATIONAL SKILLS IN DATA ANALYTICS, FOCUSING ON APPLYING ANALYTICAL METHODS TO SOLVE REAL-WORLD BUSINESS CHALLENGES. THROUGH HANDS-ON PRACTICE WITH DATA COLLECTION, ANALYSIS, VISUALIZATION, AND INTERPRETATION, STUDENTS WILL LEARN TO MAKE DATA-DRIVEN DECISIONS, ENHANCING STRATEGIC INSIGHTS ACROSS VARIOUS BUSINESS FUNCTIONS. Required Previous: BSEC-2603