



College of Business Administration

Program Brochure

Executive Master in Business Analytics

 eba@ksu.edu.sa

 cba.ksu.edu.sa/en

 0114693436 \ 0114693470

 @KsuEba

Apply for the Executive Master in Business Analytics



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RANKING

Join the oldest national university ranked among the best universities in the Arab world and internationally.



The College of Business Administration has earned both national and international accreditations and is ranked among the top universities locally, regionally, and globally.

The Executive Master in Business Analytics (coursework option) is a joint program between the Department of Management Information Systems and the Department of Quantitative Analysis at the College of Business Administration.

Introduction

For more than six decades, the College of Business Administration has contributed to preparing many professional administrators, managers, entrepreneurs, and business and political leaders who now hold prominent positions within Saudi Arabia and abroad.

In light of the data revolution and its importance in decision-making, the modern business world needs leaders who understand the importance of business data analysis and solving complex management challenges.

Therefore, the College has launched the Executive Master's in Business Analytics program (EBA) in 2022, which aims to prepare specialized professionals and business leaders capable of effectively addressing professional challenges through business analytics.

EBA keeps pace and stimulate rapid changes in data science, statistical analysis, decision-making, and technological advancements, in alignment with Saudi Vision 2030 and King Saud University's goals of building a knowledge-based society and strengthening the national workforce. EBA, in turn, contributes to qualifying, preparing leaders, and professionals capable of effectively utilizing data, thereby enhancing the achievement of institutional objectives efficiently and professionally.

Executive Master in Business Analytics

Admission Requirements

1

- Applicant must hold a full-time/distance bachelor's degree in science, health or business administration disciplines from KSU or any accredited university, with a minimum of an "Good" (2.75/5) GPA or equivalent; for relevant disciplines, the applicant must refer to the concerned department before starting the application process on the electronic portal.
- Classes are held in the afternoon from Sunday to Thursday, or on weekends Friday and Saturday as determined by the program's administration or academic department.
- Eligible applicants (those meeting all program's/departmental requirements) are selected based on specific criteria, the number of applicants, and program's capacity.

2

A score of at least 4.5 in the IELTS- Academic test or equivalent., or applicants must hold a degree from a country whose official language is English and the language of instruction was English, according to the approved deanship list.

3

A minimum of a 2-year experience.

Executive Master in Business Analytics

Program's Vision, Mission, and Objectives

Vision

To be a leading regional and globally competitive executive program for developing talent and leadership in business data analytics.

Mission

To develop scientifically qualified Saudi cadres in business data analytics to meet the needs of the public and private sectors.

Objectives

1

Supply the Saudi labor market with specialists in business analytics.

3

Build an analytical and statistical framework for using and benefiting from organizational data to enable successful digital transformation and service development.

2

Develop competencies able to work in data-driven organizational environments.

4

Serve society by supporting and implementing business analytics methodologies.

Program Learning Outcomes

Knowledge & Understanding

- Master core concepts in business analytics.
- Understand how to use technologies and tools related to business analytics.
- Analyze data to support decision-making and apply modern software tools to managerial problems in business settings.

Professional & Practical Skills

- Apply analytical methods to support managerial decisions.
- Solve managerial problems related to data collection, analysis, and dissemination.

Cognitive Skills

- Analyze diverse managerial problems.
- Think critically about how organizations can leverage data.
- Propose and compare alternative administrative and organizational decisions; assess their feasibility.

General Skills

- Communicate effectively (oral and written) with stakeholders involved in data-driven decision-making.
- Take responsibility and contribute to decision processes; work productively in teams.

Primary Beneficiaries

1

Professionals in industrial, commercial, and service sectors.

1

Government ministries, authorities, and public institutions.

3

Private business sector.

Executive Master in Business Analytics

Curriculum

Semester 1

EQUA 510: Statistics in Business Analytics

EMIS 511: Business Data Management

EQUA 512: Introduction to Business Analytics

Semester 2

EMIS 520: Enabling Technologies for Business Analytics

EMIS 521: Business Intelligence

EQUA 522: Predictive Analytics and Simulation

Semester 3

EQUA 530: Managerial Decision Making

EMIS 531: Big Data Analytics

EMIS 532: Business Data Mining

Semester 4

EMIS 540: Managing Project in Business Analytics

EQUA 541: Advanced Topics in Business Analytics

EQUA 598: Capstone Project

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Course Descriptions

EQUA 510



Statistics in Business Analytics

This course introduces managerial statistics, with focus on descriptive and inferential statistics. It introduces basic probability concepts, probability distributions for discrete and continuous variables, parameter estimations, prediction, and hypothesis testing. Nonparametric statistical techniques and their applications to business research will also be covered in the course, with emphasis on applications of Statistical computer software such as R, EXCEL, SAS or SPSS for data analysis.

EQUA 512



Introduction to Business Analytics

This course provides an overview of Business Analytics and covers descriptive, predictive, and prescriptive analytics in business. It provides an overview of: scope, data, and models of business analytics, and problem solving with analytic supported with business applications, examples, and case studies.

EMIS 511



Business Data Management

This course covers managing and maintaining databases by utilizing available and applicable management system software (traditional such as DBMS and new big data management), data warehouse, database recovery, and concurrent access. Coverage should also include the data storage technologies in wide use as well as emerging data management technologies.

EMIS 520



Enabling Technologies for Business Analytics

The course is designed for business students who need to develop an understanding of technologies, programming languages, and IT infrastructure issues and technologies and the challenges and opportunities associated with them. This course covers topics such as: Data Virtualization, NoSQL Databases, Distributed Big Data, mobile computing, cloud computing, In-memory Data Fabric, and Stream Analytics. The course also covers new technologies and trends in Business Analytics.

Executive Master in Business Analytics

Course Descriptions

EMIS 521



Business Intelligence

Business Intelligence (BI) systems are at the hearts of every organization that uses data to enhance its decision making process. It consists of operational data and various sources of internal and external data, combines them with analytical tools to deliver competitive information to decision makers. BI is used to uncover the capabilities in the organization, making it at the edge of competition. The course presents concepts of BI, discusses architecture, uses, trends, case studies, and various strategies. It also covers practical issues in implementing BI systems and tools.

EQUA 530



Managerial Decision Making

This course examines the prescriptive analytics including: optimization models, decision analysis, and their applications in management science. The course emphasizes on both Deterministic and Probabilistic Decision Models. Application areas include digital transformation management, corporate planning, finance, marketing, production and operations management, distribution, and project management. Concepts are applied through team projects and tutorials using computer software.

EQUA 522



Predictive Analytics and Simulation

This course examines the models used to predict categorical and continuous outcomes, using such techniques as neural networks, decision trees, logistic regression, multivariate analysis, support vector machines, business simulation and Bayesian network models. Also, learn how to combine two or more models to improve prediction. Concepts are applied through team projects and tutorials using statistical software.

EMIS 531



Big Data Analytics

The proliferation of digital technologies with digital storage and recording media has created massive amounts of diverse data, which can be used for marketing and many other purposes. The concept of Big Data refers to massive and often unstructured data (in diverse formats including text, video, sound, images, and more), on which the processing capabilities of traditional data management tools result to be inadequate. The course gives an overview of the Big Data phenomenon, focusing then on extracting value from the Big Data using predictive analytics techniques, and discussing various business contexts where Big Data proven to be of high value.

Executive Master in Business Analytics

EMIS 540



Managing Project in Business Analytics

Organizations have recently invested heavily in adopting Business Analytics (BA) systems to improve their organizational performance. This growing trend has resulted in a significant increase in BA related projects that are often characterized by uncertain or changing requirements, and a high implementation risk. This course focuses on equipping students with the knowledge and skills to use the project management best practices and methodologies to manage and control BA projects. The course will discuss several case studies to illustrate how to implement the theoretical methodologies in real situations.

EQUA 541



Advanced Topics in Business Analytics

In depth study of special topics in Quantitative Analysis which are determined by the department council according to the recent research and studies; e.g. Decision Models for Supply Chain Management, Statistical Quality Control, Optimization Modeling with Spreadsheets, Business Simulation, Data Visualization, or R Programming.

EMIS 532



Business Data Mining

This course covers topics and concepts about data mining with an emphasis on practical issues. Recently, data mining has gained a lot of interest among practitioners in a variety of disciplines, industries, and businesses. In every organization that collects data, it can be analyzed to make better decisions, improve policies, discover network penetration patterns, design new drugs, detect credit fraud, make accurate diagnoses, forecast important events, or monitor and evaluate reliability, predicting failures in complex systems, etc. The business data mining course includes a set of techniques (supervised learning such as decision trees, logistic regression, support vector machines, memory-based algorithms, neural networks, and unsupervised learning such as market basket analysis, clustering, data visualization, and text analysis) for extracting new patterns and trends using large databases.

EQUA 598



Capstone Project

The student, in undertaking a project, is expected to demonstrate a strong ability to apply skills and techniques acquired during the program to solve business analytics problems.

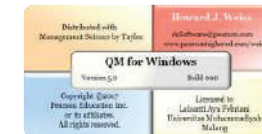
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Modern Learning Environment



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Tools & Technologies You will Apply



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Frequently Asked Questions



What is the nature of the program's partnership?

The program is jointly offered by the Quantitative Analysis Department and the Management Information Systems Department at the College of Business Administration, with an equal contribution of 50% from each department



What are the accepted English language proficiency tests?

The accepted tests are IELTS Academic, TOEFL, or STEP.



Is employer approval required for admission?

No, employer approval is not required



Does the program include a master's thesis?

No, the program includes an applied project course instead of a thesis.



Is the program offered in English?

Yes, all courses are delivered in English.



Who is the target audience for the program?

The program is open to both male and female students who meet the admission requirements.



Can admission be deferred or a semester postponed?

The regulations of the Deanship of Graduate Studies at King Saud University apply in this regard.



What is the study schedule after admission?

Students take **9** credit hours per semester (three different courses). Classes are held on Fridays and Saturdays each week.



What are the requirements for obtaining the degree?

The student must successfully complete 36 credit hours across **12** courses, including the applied project.



What is the tuition fee per credit hour and the total program cost?

The tuition fee is **2,400** SAR per credit hour. For more details, please visit the Deanship of Graduate Studies website: graduatestudies.ksu.edu.sa



What is the mode of study in the program?

The study mode is fully on-campus at the College of Business Administration, King Saud University.



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CONTACT US

 eba@ksu.edu.sa

 [@KsuEba](#)

 cba.ksu.edu.sa/en

 0114693436 or 0114693470