MASTER OF SCIENCE IN BUSINESS ANALYTICS

Lam Family College of Business

Dean: Dr. Eugene Sivadas

Program Director: Sungha Jang, Ph.D.
Phone: (415) 817-4300 (Graduate Business Programs Office)
Email: msba@sfsu.edu
 (mba@sfsu.edu)Graduate Advisors: Cholette, Jang, Ozsen, Sayeed

General Information

Business Analytics encompasses the techniques, technologies, systems, practices, methodologies, and applications that analyze critical business data to help an enterprise better understand its business and market and make timely business decisions. This 30-unit, 10-course program will prepare graduates for positions such as business analysts, data scientists, and marketing analysts in business, government, and non-profit organizations.

Program Learning Outcomes

Students completing the program will:

a. Illustrate knowledge and application of programming languages.
b. Appropriately apply data management tools and methods.
c. Apply appropriate statistical techniques.
d. Be able to extract business intelligence from data and apply it for strategic decision-making in different functional areas of business.
e. Synthesize knowledge and evaluation of outcomes by managing a complex data analytics project from start to finish.

Admission

U.S. citizens, permanent residents, and international students may apply for fall or spring admission according to the following schedule:

*   *Fall semester filing period:* October 1 through May 1.
*   *Spring semester filing period:* August 1 through October 1.

There are three rounds of application deadlines for the Fall semester filing period. The above dates are subject to change. Check the Graduate Business Programs website for the latest dates.

Application Process

Applicants are expected to have a quantitative undergraduate background. The ideal student will have a baccalaureate degree in economics, engineering, mathematics, statistics, natural sciences or quantitative areas of business discipline, e.g., management science, finance, accounting, etc. However, the program will also accept applicants who do not have a quantitative baccalaureate degree, but have acquired substantial quantitative skills during their academic or professional careers. Applicants' work experience based on their submitted resumes will be used to decide whether their quantitative skills are substantive or not. The number of years of full-time work experience, the type of organization worked for, and the type of work performed (e.g., programmer/ analyst/ researcher) will all be considered in making this decision.

Each applicant to the MSBA program must submit the following documents:

*   California State University Application (https://www2.calstate.edu/apply/) for Graduate Admission plus an application fee of $70
*   One official transcript from every college or university attended
*   GRE (Graduate Record Examination) or GMAT (Graduate Management Admissions Test) results. The deadline to take the GRE or GMAT is May 1 for Fall admission and October 1 of the prior year for Spring admission.
*   A statement of purpose showing how the desired graduate business program is related to the applicant's career and future goals. Please refer to the College of Business website for a list of questions that should be addressed in the statement of purpose.
*   TOEFL, IELTS, or Pearson Test of English is required for admission from all applicants who have completed their undergraduate degree in a non-English speaking country.
*   Résumé or curriculum vitae
*   Two letters of recommendation
*   International applicants will need to file the Financial Affidavit form to obtain an I-20 Certificate of Eligibility

The California State University Application for Admission may be submitted before other documents are submitted, but the admission decision is not made until all required materials are received.

Admission Criteria

The College of Business admissions committee reviews an applicant's file using a holistic approach and takes the following requirements into consideration:

*   Completion of a degree equivalent to a four-year U.S. bachelor's degree from a recognized university.
*   A minimum 3.0 Grade Point Average overall, or in the last 60 semester units or 90 quarter units of university coursework completed.
*   GMAT or GRE total score, verbal, quantitative, and writing scores. A GMAT analytical writing score of 4.5 or higher, or a GRE analytical writing score of 4.0 or higher is required for classified admission. A lower writing score may be accepted for either exam, however the student would be conditionally admitted and required to complete the approved Lam Family College of Business writing course.
*   Quality of statement of purpose using guidelines stated on the College of Business website
*   Two supportive letters of recommendation from workplace supervisors or faculty members
*   Qualifications on résumé
*   TOEFL score of at least 88 (or 570 PBT), IELTS score of at least 6.5 or PTE score of at least 65. The TOEFL, IELTS or PTE must have been taken within the past two years and is a requirement of all applicants who have earned their undergraduate degree from a country where the official language is not English.
*   MSBA applicants may waive the GRE or GMAT test if at least one of the following conditions is met (applicants will instead be invited in for an interview and a 45-minute writing examination): Completed doctoral or master's degree in quantitative area from a recognized/accredited program; Minimum 3.0 GPA with five or more years of full-time, professional work experience; Completed an

undergraduate degree in business from an AACSB-accredited school with a cumulative 3.0 (or higher) GPA.

Program Requirements
Orientation and Professional Development Workshops

The College of Business Graduate Programs orientation helps students prepare for the academic program and provides professional development opportunities. The workshops included during orientation are designed to enhance career prospects, professional communication style, leadership skills, and teamwork. Students are expected to attend the required orientation.

Prerequisite Courses

Admitted students must have completed a college-level course in Information Systems equivalent to ISYS 782 at SF State with a grade of B- or higher and completed a college-level course in Statistics equivalent to DS 776 at SF State with a grade of B- or higher. Both classes will need to have been completed within the past 7 years.

Some electives may require additional prerequisites as specified in the Course Bulletin.

Business Analytics (MS) – 30 Units Minimum
Degree Prerequisites (0-6 units)

Admitted students must have computing skills equivalent to ISYS 782 , and a completed college-level course in statistics equivalent to DS 776. Prerequisite courses must be completed with a grade of B- or better. Applicants with substantive work experience and knowledge in these two areas may apply for a waiver of the pre-requisite courses after accepting the admissions offer. Waivers may involve a test of knowledge for each prerequisite.

Code	Title	Units
DS 776	Data Analysis for Managers	3
ISYS 782	Information Systems for Management	3

Core Requirements (18 units)

Code	Title	Units
DS 853	Applied Multivariate Analysis	3
DS 861	Data Mining and Advanced Statistical Methods for Business Analysts	3
DS 862	Machine Learning for Business Analysts	3
ISYS 812	Programming and Applications for Data Analytics	3
ISYS 850	Seminar in Business Intelligence	3
ISYS 864	Data Management for Analytics	3

Culminating Experience (3 units)

Code	Title	Units
BUS 895	Research Project in Business	3

Electives (9 units)

Select three courses form the list below. Depending on choice of elective courses, students in the MSBA program may be required to take other 700-level courses to meet prerequisites, or may request a waiver based on relevant work experience or prior coursework. If additional courses are needed to meet prerequisites for elective courses, this may increase the number of units needed to complete the degree. Please review all prerequisites on elective courses of interest and work with a program advisor on selecting electives.

Code	Title	Units
ACCT 814	Seminar in Accounting Data Analytics	3
ACCT 831	Financial Statement Analysis	3
DS 852	Managerial Decision-Making	3
DS 855	Supply Chain Management	3
DS 856	Seminar in Project Management	3
ECON 825	Applied Time Series Econometrics	3
ECON 830	Advanced Econometric Methods and Applications	3
ECON 840	Health Economics Analysis and Research	3
ECON 880	Applied Economics and Data Analysis with R	3
FIN 819	Financial Analysis and Management	3
FIN 820	Seminar in Financial Risk Management	3
FIN 825	Seminar in Investments	3
FIN 828	Seminar: Financial Markets and Institutions	3
FIN 836	Seminar in International Finance	3
HTM 831	Services Operations Management	3
ISYS 814	Information Systems for Strategic Advantage	3
ISYS 856	Enterprise Mobile Applications	3
ISYS 865	Managing Enterprise Networks	3
ISYS 869	Business Process Management	3
ISYS 875	Enterprise Cyber Security Management	3
MGMT 850	Ethics and Compliance in Business	3
MKTG 820	Digital Marketing	3
MKTG 864	Seminar in Marketing Research	3
MKTG 885	Marketing of High-Technology Products and Services	3
MKTG 886	Seminar in Marketing Analytics	3

Additional electives may be approved by the Director of the MSBA program