MS IN BUSINESS ANALYTICS

In Workflow

1. CBA College Committee Chair (limin@csus.edu)
2. CBA Dean (mikhaili@csus.edu)
3. Academic Services (catalog@csus.edu)
4. Senate Curriculum Subcommittee Chair (curriculum@csus.edu)
5. Dean of Undergraduate (james.german@csus.edu; celena.showers@csus.edu; renee.leonard@csus.edu)
6. Dean of Graduate (cnewsome@skymail.csus.edu)
7. Catalog Editor (catalog@csus.edu)
8. Graduate Studies (jdsmall@csus.edu; mxiong@csus.edu)

Approval Path

1. Wed, 09 Mar 2022 00:00:48 GMT
   Min Li (limin): Approved for CBA College Committee Chair
2. Wed, 09 Mar 2022 00:18:54 GMT
   Andrey Mikhailitchenko (mikhaili): Approved for CBA Dean

History

1. Apr 23, 2021 by Min Li (limin)
2. Feb 16, 2022 by Janett Torset (torsetj)

Date Submitted: Tue, 08 Mar 2022 23:59:37 GMT

Viewing: MS in Business Analytics
Last approved: Thu, 17 Feb 2022 01:09:33 GMT
Last edit: Tue, 08 Mar 2022 23:59:36 GMT

Changes proposed by: Min Li (101017159)

Academic Group: (College)

Business

Academic Organization: (Department)

Information Systems and Business Analytics

Catalog Year Effective:

2022-2023 Catalog

Individual(s) primarily responsible for drafting the proposed degree major program:

Name (First Last)	Email	Phone 999-999-9999
Min Li	limin@csus.edu	916-278-7132

Type of Program Proposal:

Minor

Program Change Type:

Non-Substantive

Is this a pilot program?

No

Is this a Fast Track program?

No

Title of the Program:

MS in Business Analytics

Designation: (degree terminology)

Master of Science

Briefly describe the program proposal (new or change) and provide a justification:

Academic Standards Committee and Faculty Council of the College of Business approved revision of admission requirements. Form B needs to be revised accordingly to update the University Catalog.

Objectives of the degree program:

PLO 1: Integrate and apply knowledge and skills of business analytics to current and practical contexts and situations.
SLO 1.1: Integrate knowledge of business analytics methods in statistics, data warehousing, data mining, machine learning, and management science to create business value.
SLO 1.2: Develop tools using business analytics software and technologies.
PLO 2: Communicate analytics findings to business decision makers in a variety of formats appropriate to the audience.
SLO 2.1: Communicate in writing analytics findings to business decision makers appropriate to the audience.
SLO 2.2: Communicate analytics findings orally to business decision makers appropriate to the audience.
PLO 3: Demonstrate the ability to think creatively, analytically, and critically when confronted with business problems.
SLO 3.1: Develop analytical models to appropriate data to make holistic judgments when analyzing business situation.
SLO 3.2: Demonstrate knowledge and understanding of the underlying assumptions and limitations of business analytics methods and models.
PLO 4: Communicate key knowledge of business analytics with clarity and purpose, within the field and broader business contexts.
SLO 4: Demonstrate an ability to integrate multiple sources of data, evaluate data accuracy and thereby translate data and analytics into clear and actionable business decisions and insights.
PLO 5: Our graduates demonstrate an understanding of professional integrity and the ethical and legal implications of the use of business analytics.
SLO 5: Integrate ethical actions and regulatory compliance in the management and use of data
PLO 6: Develop business analytics implementations that represent multicultural perspectives and global awareness
SLO 6: Develop business analytics implementations that represent multicultural perspectives and global awareness

University Learning Goals

Graduate (Masters) Learning Goals:

Critical thinking/analysis
Communication
Information literacy
Disciplinary knowledge
Intercultural/Global perspectives
Professionalism

Will this program be required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?

No

Catalog Description:

The Master of Science in Business Analytics prepares students to connect data and models to substantive business problems so effective business decisions can be made. The program focuses on using quantitative approaches to help improve decision making and performance in business. To better understand business situations, students focus on collecting and analyzing data, drawing on computer technology, statistics, applied mathematics, and machine learning techniques. The program covers database concepts, data visualization tools and techniques, statistical modeling, data mining, optimization, simulation, and their applications in business disciplines such as accounting, finance, human resources, insurance, management, and marketing.

Admission Requirements: Course prerequisites and other criteria for admission of students to the degree major program, and for their continuation in it.

Admission Requirements

Four-year bachelor's degree or equivalent with a minimum GPA of 2.5

- Statement of Purpose
- Résumé
- Two letters of recommendation
- Minimum 6 units of quantitative courses, with a grade of a minimum of "C" or higher in these quantitative courses from those applicants with less than 3 years of analytics related work experience.

- Foreign language test is required of all applicants who have earned their undergraduate degree from a country where the official language is not English. One of the following tests taken within the past two years are accepted: Official English Proficiency Score Report (Institution Code: 4671), TOEFL - Minimum of 80 iBT, IELTS - Minimum of 7.0 Band Score, PTE Academic Score - 65.

Deadlines

Please see the CBA Web site for current admission deadlines: https://www.csus.edu/college/business-administration/graduate/ms-business-analytics.html

Application Procedures

All prospective graduate students must file the following documents with both the CBA Graduate Business Advising Center (GBAC) and the Sacramento State Office of Graduate Studies (River Front Center, 215) as noted below:

1. **To the College of Business Administration Graduate Business Advising Center, submit the following:**
    1. **One (1)** set of official transcripts[1]
    2. Recommendation Form Waiver
    3. **Two (2)** Recommendation Forms
    4. Current Resume.

       Mail all of the above documents to the following address:

       Graduate Business Advising Center (GBAC)
       Tahoe Hall, 1037
       College of Business Administration
       CSU, Sacramento
       6000 J Street
       Sacramento, CA 95819-6088
       Phone: (916) 278-6772
       FAX: (916) 278-4233
       Email: cba-gbac@saclink.csus.edu

2. **To the Sacramento State Office of Graduate Studies, submit the following:**
    1. Online CSU Graduate Application: (https://www2.calstate.edu/apply/graduate (https://www2.calstate.edu/apply/graduate/))
    2. $70 Application Fee (paid on-line when you file your application).
    3. Mail one (1) Set of Official Transcripts to the following address:

       Office of Graduate Studies
       River Front Center, Room 215, MS 6112
       CSU, Sacramento
       6000 J Street
       Sacramento, CA 95819
       Phone: (916) 278-6470
       Website: www.csus.edu/graduate-studies (http://www.csus.edu/graduate-studies/) (Visit How to Apply section for more information)

Please Note: Applications are not considered complete and will not be reviewed unless you complete all the steps as directed. You must submit official transcripts from ALL colleges and universities previously attended. Submission of official transcripts and test scores must be received no later than the application deadline.

International Students

International students will **not** be issued an F-1 student visa for this program as it is a completely online program. You may apply but you will not be issued a student visa to come to the United States. All materials, inclusive of TOEFL scores, must be turned into the Office of Graduate Studies. To ensure consideration, international students should submit their material to the International Admissions Office one month prior to the above CBA application deadlines.

TOEFL

The University requires a minimum TOEFL score of 550 (paper based), 80 (internet based), or 213 (computer based).

To understand the guidelines for your country please go to http://www.csus.edu/gradstudies/futurestudents/applicantswithforeigndocuments/index.html (http://www.csus.edu/gradstudies/futurestudents/applicantswithforeigndocuments/). Click on your country for detailed information.

California State University, Sacramento interprets "where English was the principal language of instruction" to mean that a school is located in a country where English is the native language (the daily medium of communication of the majority of the residents is English), and that the student received academic instruction in all subjects (except foreign language courses) at all levels of education in English.

Minimum Units and Grade Requirements for the Degree

Total units required for MS/MSBA: 30 (excluding foundation courses)
Minimum Cumulative GPA: 3.0. The minimum acceptable grade for any graduate business course is "C." No more than two (2) courses with a grade of "C" will be counted for satisfaction of graduate program requirements.

Advancement to Candidacy

A student's program requirements are governed by the catalog in effect at the time one is accepted into and begins graduate school or by the catalog in effect at the time advancement to candidacy is approved.

Prior to enrolling in Culminating Requirements, a student must advance to candidacy. Initiation of advancement procedures is the responsibility of the student. The application to advance must be filed no later than the semester prior to enrollment in culminating experience requirement.

Eligibility to advance to candidacy requires satisfactory scholastic achievement, presentation of a plan of graduate study, and demonstration of writing proficiency. A classified graduate student in Business Administration may apply to the Graduate Business Advising Center (GBAC) for advancement to candidacy for the Master's degree after s/he has completed at least 12 units of the program requirements beyond the Foundation requirements. Students with a GPA deficiency or who have not fulfilled the Writing Placement for Graduate Students Requirement (GWAR) cannot advance to candidacy.

As defined by policy http://www.csus.edu/umanual/acadaff/fsm00010.htm, a change in units constitutes a substantive change to the program. If your changes constitute a substantive change, please refer back to the "Program Change Type" field above to ensure that "Substantive" is selected.

Program Requirements: (If new courses are being created as part of a new program, it will be useful to propose courses first.)

Program Requirements

The program consists of ten 3-unit courses. These courses are carefully chosen based on curriculum requirements for an excellent business analytics program, market demand, and available faculty expertise.

Code	Title	Units
Required Courses (24 Units)		
MSBA 201	Programming for Business Analytics	3
MSBA 202	Data Management for Business Analytics	3
MSBA 203	Data Visualization and Communication for Business Analytics	3
MSBA 204	Operations Analytics and Decision Models	3
MSBA 205	Data Analytics for Business	3
MSBA 206	Data Mining for Business	3
MSBA 207	Machine Learning for Business	3
MSBA 208	Course MSBA 208 Not Found	3
Electives (6 Units)		
Select two of the following:		6
MSBA 211	Marketing Analytics	
MSBA 212	Social Media Analytics	
MSBA 213	Financial Analytics	
MSBA 214	Big Data Technologies for Business	
Total Units		**30**

CLASS SCHEDULE

Semester 1 (Fall) MSBA 201, 202

Semester 2 (Spring) MSBA 203, 205

Semester 3 (Summer) MSBA 204, 206

Semester 4 (Fall) MSBA 207, Elective

Semester 5 (Spring) Elective, MSBA 208

For graduate programs, the number of declared undergraduate major and the degree production over the preceding years of the corresponding baccalaureate program:

We do not have such figures as we just proposed an undergraduate business analytics concentration and expect healthy enrollment based on expressed interest in our data analytics course. Given the large number of data analytics job opportunities in this data-driven digital economy, we expect a large number of students interested in both the proposed undergraduate concentration and graduate program in business analytics.

Fiscal Impact to Change an Existing Program

Indicate programmatic or fiscal impact which this change will have on other academic units' programs, and describe the consultation that has occurred with affected units:

No impact

Provide a fiscal analysis of the proposed changes:

No fiscal impact

How will the above changes be accommodated within the department/College existing fiscal resources?
No accommodation is needed.

Will the proposed changes require additional resources?
No

What additional space, equipment, operating expenses, library, computer, or media resources, clerical/technical support, or other resources will be needed?
none

Estimate the cost and indicate how these resource needs will be accommodated:
none

Key: 423