



CALIFORNIA STATE
UNIVERSITY
E A S T B A Y

COLLEGE OF
**BUSINESS &
ECONOMICS**

College of Business and Economics

MS Business Analytics Annual Program Report

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Program Co-Directors

Jiming Wu
Chongqi Wu

I. SELF-STUDY

A. Planning Goals and Progresses Made

The MS in Business Analytics (formerly, MS in Business Administration, Business Analytics Option) was founded in fall 2015. We have established the following goals:

1. In order to have a sustainable program, we set enrollment targets of 40-50 students per academic year in near term and 60-80 students in long term.

Progress Made: In the first academic year 2015-2016, we received 218 applications, out of which 97 were admitted and 64 had enrolled. In the first two quarters of academic year 2016-2017, we have already received 239 applications, out of which 118 were admitted and 65 have enrolled. We fully expect that the enrollment of 2016-2017 will reach approximately 100 students.

2. Change the degree title from MS Business Administration – Business Analytics Option to MS Business Analytics and obtain STEM status by fall 2018.

Progress Made: We were able to successfully change the degree title to MS in Business Analytics and obtain CSU degree program code 05071, which corresponds to CIP code 52.1301. The change in CIP code makes MS Business Analytics a [STEM designated degree program](#). The change takes effect starting in fall 2016, two years ahead of schedule.

3. Create attractive curriculum and offer cutting edge courses in data analytics and data engineering.

Progress Made: We have developed and offered four new courses in Data Analytics, Data Mining, Data Warehousing and Business Intelligence, and Prescriptive Analytics. We have also revamped two existing courses Database Management and Knowledge Management to instill recent developments in the field. Knowledge Management has been changed to Big Data Technologies and Applications to reflect the marked update. We also tap into courses offered by other departments such as Data Visualization, Statistical Learning with R, and Marketing Analytics.

4. Establish collaborative relationship with companies and organizations in Bay Area.

Progress Made: We have established MSBA Advisory Board with board members from Google, LinkedIn, SAP, Chevron, Walmart Lab, Safeway and Kaiser.

B. Program Changes and Needs

1. We started with offering each of the six core courses once a year. To satisfy the huge demand that the program has generated, we are currently offering each core course twice a year. In 2017-2018, we expect to offer each core course every quarter.
2. To meet the increasing demand, we have hired a tenure-track faculty member in ITM who is currently teaching two core courses. Currently, we are hiring at least one more

tenure-track faculty members in ITM who are expected to join us in fall 2017. After Q2S conversion, we expect to need at least one more full time faculty members.

3. Potentially create concentrations under MS Business Analytics and develop multiple electives. Offer some courses in hybrid or online format.
4. Strengthen and expand the collaboration with industry, in hopes that we can create more projects, internships and job opportunities for the students.

II. SUMMARY OF ASSESSMENT RESULTS

A. Which student learning outcome was assessed

The student learning outcomes 1 and 2 were assessed this year.

SLO1: Develop advanced knowledge and skills in using business analytics technology and applications.

SLO2: Build expertise in quantitative methods and tools for business analytics.

B. What assessment instrument(s) were used to measure these SLOs

These two SLOs were both measured by faculty developed rubrics.

C. What participants were sampled to assess these SLOs

The participants were mainly graduate students majored in MS Business Analytics.

D. What assessment results were obtained, highlighting important findings from the data collected

For SLO1, the assessment results show that all of the students being measured have met the expectations to understand technical basics of advanced business analytics technology. In addition, more than 93% of the students being measured have also met or even exceeded the expectations to exhibit medium levels of skills in using the technology and to demonstrate a strong ability to develop relevant applications.

In the assessment of LG2, it is found that the majority of students are capable of building solid quantitative, mathematical and Excel models for business problems and using tools such as Solver to find optimal or heuristically sound solution(s) to these business problems. They are also capable of interpreting and communicating the results clearly. For about 15% of students who do not meet the expectation, it is mainly because they lack a sound grasp of algebra and statistics.

E. How the assessment results were (or will be) used, e.g. changes in course content, course sequence, student advising, etc., as well as any revisions to the assessment process the results suggests are needed

For SLO1, the assessment results are very useful and indicate some actions or changes are necessary. The first is to spend more lecture hours to discuss programming languages and logics so that the students can better understand what exactly a code does and why it does it. The second is to assign more programming problems and tasks to students so that they can have more opportunities to practice and be more confident in developing advanced applications.

To address the issues raised in assessment of SLO2, (1) we have raised the quantitative requirements in admitting students by weighing quantitative portion of GRE/GMAT heavier; (2) more students are asked to take fundamental course in MGMT6015; (3) after conversion, all students will be required to take the pre-requisite course Quantitative Fundamentals for Business Analytics.

III. PROGRAM STATISTICAL SUMMARY

Because the MSBA program was founded in fall 2015, only part of the data for faculty, course, and demographics and level of majors are available.

Table 1: Student Demographics of Majors for Fall 2015

	Headcount	Percentage
Gender		
Female	18	55%
Male	15	45%
Median Age	27	
Ethnicity		
Asian	5	15%
Hispanic/Latino	2	6%
White	11	33%
Black		0%
Two or More Races		0%
Hawaiian/Other Pacific Island		0%
American Indian		0%
Not Reported	15	45%
Residence		
California	20	61%

United States	1	3%
Other	12	36%
Pell Grant Eligible		
Yes	0	0%
No	33	100%
First Generation College Student		
Yes	12	36%
No/NA	21	64%

Table 2: Student Level of Majors for Fall 2015

	Headcount	Percentage
Class Level		
Freshman		0%
Sophomore		0%
Junior		0%
Senior		0%
Graduate	33	100%

Table 3: Faculty and Course Data for Fall 2015

Faculty Data for Fall 2015		
	Headcount	Percentage
Full-time tenure/track faculty	4	80%
Part-time lecturer faculty	1	20%
Course Data for Fall 2015		
Number of sections offered	2	
Average section size	38.5	