

New Academic Program: BS in Business Analytics

BACKGROUND

Program Proposed Start Date

Summer 2019

Program Description

The new degree program proposed is a Bachelor of Science in Business Analytics (BS-BA)

The full proposal is available at: <https://secure.oregonstate.edu/ap/cps/proposals/view/106038>

The College of Business (COB) proposes to offer a Bachelor of Science degree in Business Analytics (BS-BA) with specializations in Human Resource Analytics, Digital Marketing Analytics, and Market Research and Consumer Analytics. The BS-BA provides students a focused exploration of applying data science tools to specific business disciplines of human resources and marketing.

- The Human Resource Analytics option trains students to use a data-driven approach to managing people-related issues, such as recruiting, performance evaluation, hiring and promotion, compensation, and employee retention.
- The Digital Marketing Analytics option develops analytical skills associated with Customer Relationship Management (CRM), web analytics, social media marketing and analytics, and marketing analytics.
- The Market Research and Consumer Analytics option trains students to collect and analyze data to study market conditions and help businesses to promote their services and products. Students pursuing this option will gather and interpret data on consumer demographics, needs, preferences, and buying habits by using statistical techniques and software.

Program Context

As part of the strategic initiatives of the college, we are working to expand access to all of our educational programs, both undergraduate and graduate. We have diligently added new programs to meet market demand and are offering those programs across multiple locations (Corvallis, Portland, Bend) and modalities (on-campus face-to-face, fully asynchronous online, and hybrid formats that blend asynchronous and synchronous online and face-to-face formats).

The college is also attentive to increasing the efficiency of our program offerings. We gain efficiency by using a common undergraduate business core, packaging existing courses into new degree offerings, and using the same basic course content between graduate and undergraduate degree program offerings.

The proposed course of study totals 180 credit hours, including 40 credits of university baccalaureate core general education requirements, 91 credits of business administration core requirements (that includes 18 credits of baccalaureate core), 44 credits of business analytics requirements, and 5 credits of unrestrictive electives.

The 44 credits of business analytics requirements include 21 credits of core analytics courses covering statistics, quantitative methods, data management, data visualization, and text mining. The Human Resource Analytics option includes 20 credits of existing courses in human resource management, leadership, employee recruitment and selection, compensation management, and influence and negotiation. The Digital Marketing Analytics option includes 20 credits of existing courses in digital media, search engine marketing, customer relationship management, consumer behavior, and integrated marketing communications. The Market Research and Consumer Analytics option includes 20 credits of existing coursework in fundamentals of market research, customer relationship management, qualitative research methods, consumer behavior, and a marketing research practicum. All three options include an integrative analytics project course when student teams develop solutions for sponsored projects provided by industry.

All three options will be delivered at the Corvallis campus. The BS-BA degree with the Digital Marketing Analytics option and the Market Research and Consumer Analytics options may also be earned fully online.

Program Purpose/Relationship to University Mission and Strategic Plan

The Business Analytics degree is most clearly relevant to the university’s signature area of “Promoting Economic Growth and Social Progress”. Increasingly, businesses, nonprofits, and other organizations are interested in better using available information in operations, tactical, and strategic decision making. Business Analytics employs the combination of rapid growth of available data, both in organizations’ data stores and through third parties, and the equally rapid development in software interoperability, data exchange mechanisms, and data mining and visualizations techniques. This combination allows organizations improved ability to extract and employ the value from this information to meet stakeholders’ needs.

With respect to the 2030 vision for the university, this new degree program will:

- Offer an affordable and excellent education for all learners by providing educational access in residence in Corvallis and online via Oregon State Ecampus. In addition, the college has developed pathways for community college students to complete their four-year degree either online or in-residence.
- Lead in education delivery by being the only business analytics undergraduate degree program offered at a state university.
- Engage students as collaborators in experiential learning and discovery by incorporating actual analytics projects from industry into the capstone analytics course.

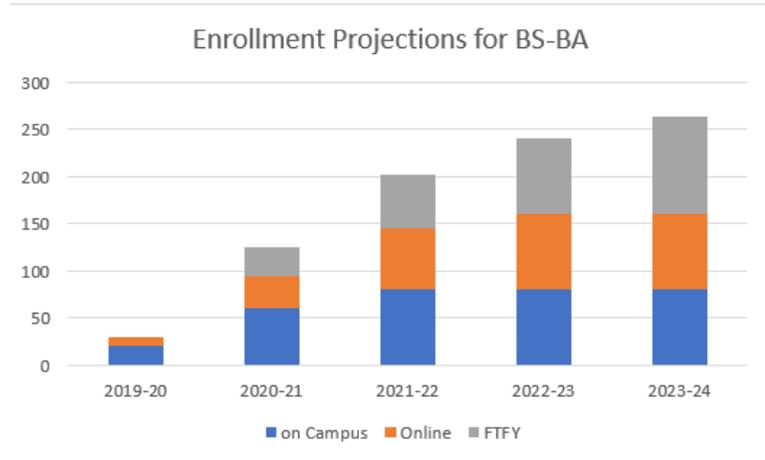
Need for the Program

Currently, there is significant demand for business analytics knowledge and skills.

- McKinsey Global Institute report: the United States faces a shortage of 140,000 to 190,000 individuals who possess deep business analytic skills and an additional 1.5 million managers with the skill set to implement the results.
- Computerworld surveys consistently identify business intelligence/analytics high in their lists of difficult-to-find skills.

Program Financials

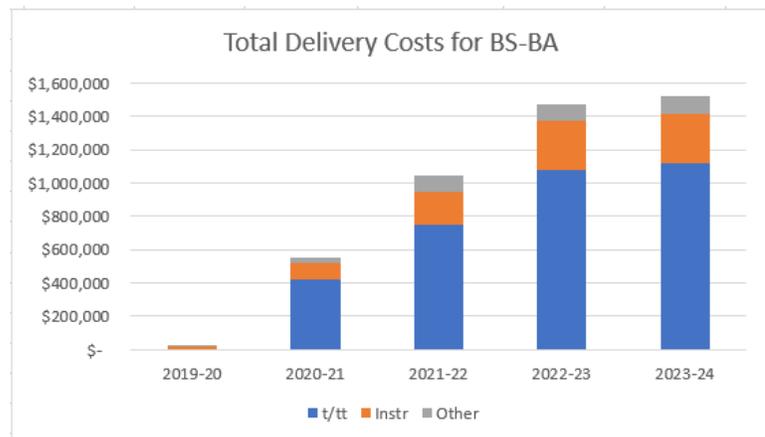
Projected Enrollments: On-campus enrollments for Academic Year (AY) 2019-20 are based on projections that 20 students will switch from existing management and marketing majors to the new business analytics degree. In future years, we estimate that approximately 20 students per year will transfer into the college from other majors (predominately the University Exploratory Studies Program). We expect our on-campus enrollments from transfers to stabilize at 80 students per year.



Our Ecampus online projections are that ten students will transfer into this degree program in the first year. Once we start advertising the program, we anticipate 25 new students will enroll in the program in AY 2020-21, and then 40 students per year thereafter. Our online enrollments will also stabilize at 80 students per year.

We will miss out on recruiting first-time first-year students into the project for AY 2019-20. We estimate to recruit 30 students per year into the program beginning AY 2020-21.

Cost to Deliver the Program: Faculty salaries are the major expenses for delivering the BS-BA degree program. The Association to Advance Collegiate Schools of Business accreditation requires that a minimum of 60 percent of our courses be delivered by academically qualified faculty, which typically means tenured and tenure-track (T/TT). The remaining 40 percent can be delivered by fixed-term instructional faculty (Instr).



The undergraduate business core comprises 84 credits of coursework. We add additional sections of core courses with every increase of 50 students. Given the enrollment projections above, we will not need to add sections of business core classes until AY 2022-23.

For AY 2019-20, we expect that only half of the students switching into the major will require the 400-level courses. These students can be absorbed into existing business analytics, management, and marketing courses. In subsequent years, we are adding sections as enrollment in the program grows and students need the 400-level courses (note that First-Time First-Year (FTFY) students who enroll in the major during their first year will not need the 400-

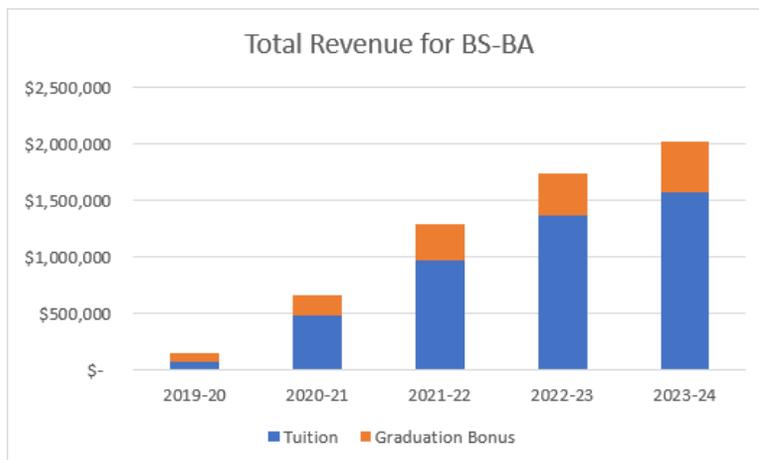
level classes until their fourth year). Our upper-division courses have a class capacity of 45 students, which then creates the step-function of adding sections every time total demand for the 400-level courses increases by 45 students.

The "other" costs include adding additional information technology resources in AY 2020-21 and a new academic advisor in AY 2021-22.

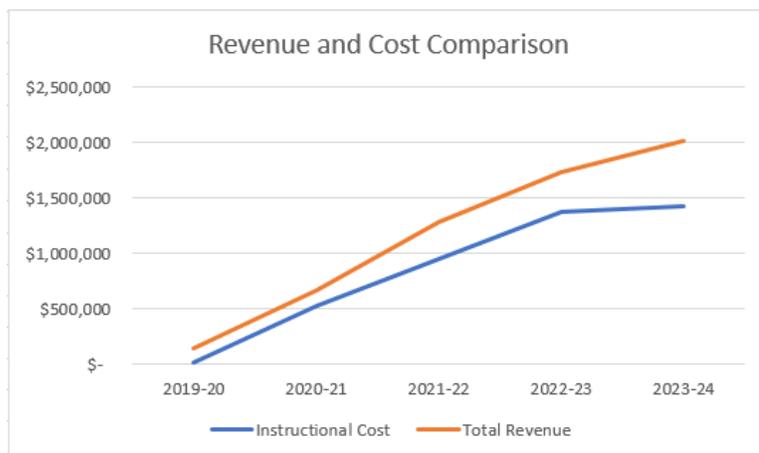
Revenue: There are three sources of revenue to support the program: tuition, differential tuition, and completion bonuses. Using the new proposed budget model, the on-campus program will generate \$56 per student credit hour (SCH) in tuition and \$21 per SCH in differential tuition, for total tuition of \$74.90 per SCH. For Ecampus, tuition is \$150 per SCH plus the \$18.90 differential for a total of \$168.90 per SCH. The estimated SCH generated for on campus and online students was used to generate tuition revenue.

Year	Headcount	SCH onCampus	SCH Online	Graduates
2019-20	30	320	240	20
2020-21	125	2910	1540	48
2021-22	202	6199	2860	93
2022-23	236	9536	3520	103
2023-24	273	11567	3520	123

The completion bonus for the college is \$3,935 per graduate, funds the college receives for each student that completes a degree. Approximately 90% of the transfer students who enroll in the program will graduate. We used our historical six-year graduation rate to predict graduates from the FTFY enrollments. Estimated graduates from the program were used to generate completion bonus revenue.



We projected tuition to increase at three percent per year. We held the differential tuition constant (based on the fact that differential tuition does not automatically increase with tuition), and we held the completion bonus constant (it has not been specified how parameters in the new budget model will change in future years). This is the most conservative approach to revenue generation.



Cashflow Analysis: We project positive cashflows starting in year 1, with steady growth after increased enrollments and expanded course-section offerings.

RECOMMENDATION

All appropriate university committees and the OSU Faculty Senate have positively reviewed the proposed program. The Provost recommends that the Academic Strategies Committee approve the establishment of a BS in Business Analytics, effective summer 2019, pending the support of the Statewide Provosts Council and the approval of the Higher Education Coordinating Commission.