



## Corporate Projects

### Overview

The [MS-Business Analytics \(MSBA\)](#) program provides an educational experience that combines several university resources in addressing the study, research, and application of analytics. The program is a one-year, cohort-based model with interdisciplinary study in statistics, computer programming, and business. Through classroom experience, students gain knowledge in areas such as, but not limited to:

- Data mining/management including cloud platforms
- Programming with Python
- Applying statistical analysis to real problems via R, classic regression, and ANOVA
- Visualization using Tableau and Power BI
- Predictive and descriptive analytics
- Analyzing social networks and marketing efficacy
- Practical machine learning and optimization
- Business strategy and data translation, from problem scoping → analysis → value creation

The program also emphasizes experiential learning through practical and applied training on analytics projects. Student teams are matched with external projects for every semester in residence, creating value for client partners and simultaneously exposing students to the art—and nuances—of leveraging data to address business needs.

### Logistics

**Duration:** Roughly 10-12-weeks in either Fall (September-December) or Spring (January – May)

**Timing:** Ordinary cadence listed below, however we are also accepting “Fall Projects” in spring 2021.

- Spring Projects: One company project for the entire cohort (30-45 students). This is the first semester for the students and is used as a training platform to apply their classroom training. One faculty advisor liaises with the client and oversees the competing teams tasked with a single, client objective.
- Fall Projects: Each student team (4-5 students) is matched with an individual client and a faculty coach, albeit unlike Spring projects, students regularly engage with the client directly. Fall projects typically the last semester for the students and serves as a capstone experience for their degree.

**Sequence:** All projects begin with an initial consultation with our MSBA director to assess fit and define the project, after which clients are matched with student/faculty teams. Upon kick-off, students and their advisor (Fall Project) or the faculty coach (Spring project) sync with the client to hone-in on the project scope, priorities, and initial data share. Student teams then iterate between analysis, prototyping, and client check-ins, culminating in a final presentation of results, recommendations, and code to the client (final presentations typically involve client-side leadership teams).

### Client Commitments

- Communicating project objectives up-front, engaging with the MSU team approximately every two weeks to validate their efforts, and to the extent possible—timely responses to data requests.
- A point-person for the MSU teams to engage with approximately every two weeks. We have successfully added value in partnership with owners, executives, managers, and sole-contributors (former clients have shared that engaging with MSBA student teams was a rewarding experience for sole-contributors first managerial foray).
- While we do not charge for project work, we provide an optional invoice should you wish to help us offset student costs.

### Past Examples

- Automotive: Customer service response
- Financial Services: Product selection behavior
- Retail: Purchase behavior, loyalty programs, pricing
- Manufacturing: Route optimization, sales analysis
- Insurance: Policyholder behavior, segmentation
- Energy: Customer retention, employee satisfaction
- Non-profit: Donor behavior and strategy development, fraud and risk analysis

To schedule an exploratory conversation around your analytical needs, kindly reach out to the MS Business Analytics Program Director, Gayle Nelson [gdcohen@msu.edu](mailto:gdcohen@msu.edu).