University Senate

Proposed: April 28, 2017

Adopted: April 28, 2017
by voice vote with no abstentions

**RESOLUTION TO ESTABLISH A PROGRAM LEADING TO AN M.S. IN BUSINESS ANALYTICS (SEAS)**

WHEREAS, business analytics focuses on developing new insights and understanding of business performance using data, statistical and quantitative analysis, and explanatory and predictive modeling to help make decisions and to improve business operations, and

WHEREAS, the role of analytics has grown increasingly critical in business, health care, government, and other sectors of the economy, and

WHEREAS, there is an increasing need for individuals with an analytical approach to management who can use data, understand statistical and quantitative models, and make data-driven business decisions, and

WHEREAS, Columbia's Business and Engineering schools are both centers of research excellence in the field of business analytics, and

WHEREAS, the subject is a core discipline in both schools, and

WHEREAS, the Business School has been involved with the creation of this program, and

WHEREAS, graduates from this program are expected to assume positions as analysts in logistics, supply chain, revenue management, and consulting firms, and as financial analysts in risk management departments of investment banks, hedge funds, and credit card and insurance firms,

THEREFORE, BE IT RESOLVED that the Senate approve the establishment of a program leading to the M.S. in Business Analytics at the School of Engineering and Applied Science.

BE IT FURTHER RESOLVED that the Senate Education Committee review the program five years after its launch.

Proponent:

Education Committee

**Purpose**

Business analytics focuses on developing new insights and understanding of business performance using data, statistical and quantitative analysis, and explanatory and predictive modeling to help make decisions and to improve business operations. The role of analytics has grown increasingly critical in business, healthcare, government, and many other sectors of the economy. Furthermore, New York City is a significant hub in the fast growing industry ecosystem. Given this background, it is synergistic for the Columbia School of Engineering and Columbia Business School to collaboratively develop a Master of Science in Business Analytics.

The Master of Science in Business Analytics (MS in Business Analytics) offers students a comprehensive and applied curriculum that will enable them to:

- Apply methods, tools, and software for acquiring, managing/storing, and accessing structured and unstructured data
- Prepare data for statistical analysis, perform basic exploratory and descriptive analysis, and apply statistical techniques to analyze data
- Apply descriptive, predictive and prescriptive analytics to business modeling and decision-making
- Demonstrate orally and in writing the ability to explain complex analytical models and results

**Need**

The market for the proposed program is rapidly growing as evidenced by recent publications. Starting in the 2000s, the use of business analytics grew exponentially in all areas, including healthcare, government, retail, e-commerce, media, manufacturing, and the service industry. The result is an increased need for employees with an analytical approach to management who can utilize data, understand statistical and quantitative models, and are able to make better data-driven business decisions.

Business Analytics is an area of research excellence in both the Graduate School of Business and the School of Engineering. Within the Business School, Business Analytics is a core discipline: they teach a very popular core course in the topic; they have extensive research expertise and leadership within Decision, Risk, and Operations (DRO) and Marketing divisions; and they have a group of 150 or so MBA students and about 50 EMBA students interested in the area. The same area is also a core discipline for the Industrial Engineering and Operations Research Department at the School of Engineering. SEAS currently offers a very popular concentration in Business Analytics within the MSOR.