

BRANDEIS UNIVERSITY  
International Business School  
**BUS 51a – Introduction to Business Analytics with Excel**  
Summer 2025

**Instructor:** Yeabin Moon  
**Office:** Sachar 209B  
**Email:** [yeabinmoon@brandeis.edu](mailto:yeabinmoon@brandeis.edu)  
**Office Hours:** Please make an appointment online using the provided [link](#) or email me.

**Class information:** This is an asynchronous course. All course materials are available on the Moodle page. You may progress through the lectures—whether by reading or watching the recordings—at your own pace. **However, please note that homework assignments and the final project have fixed deadlines.** For the final presentation, you'll need to schedule an appointment with me during the first week of July.

**Materials:** The course is divided into three parts. The first two parts use textbooks by George Mount, both of which are available through Brandeis credentials on O'Reilly. The first part follows *Modern Data Analytics in Excel*, while the second part is based on *Advancing into Analytics*. The final part of the course is based on my own lecture notes.

**Course Description:**

This course offers a gentle introduction to data analytics, with Excel as the primary platform. While the focus is on Excel, the concepts and processes you learn can be applied across other tools as well. The first part of the course covers database management systems (DBMS). Although DBMS is typically taught using SQL, we will use Excel for its intuitive interface. This class is not focused on teaching Excel itself, though we will cover key functions as needed. The second part introduces essential quantitative methods for business students. You will learn how to summarize, visualize, and interpret data, and how to apply basic statistical inference to draw meaningful conclusions.

**Credit Hours/Workload:**

Success in this four-credit course is based on the expectation that students will spend a minimum of 9 hours per week on coursework, including readings, assignments, discussion participation, and exam preparation. Please note that this is an intensive 5-week course, so it's important to plan carefully to stay on top of each requirement.

## Learning Goals:

By the end of the class students should be able to:

1. Learn the basics of ETL process on database.
2. Obtain Excel skills at a level that is necessary for any entry level position in business.
3. Learn to analyze datasets using Excel tools.
4. Learn the basics of data visualization. i.e., you will learn to present data and data analysis in intuitive and meaningful ways.
5. Learn the basics of regression analysis (predictive analytics).
6. Apply course topics successfully to a real-world problem (through the course project).

## Prerequisites and Targeted Audience:

*Prerequisites:* BUS 6a and has not taken BUS 51b

*Audience:* This is a required course for all business majors at Brandeis University. Even if this course can be exempted by taking similar courses in other departments in the University, we strongly recommend that students with an interest in business take this course as it will teach the Excel skills required in the workplace.

## Course Website:

Please see the course page on the Brandeis Moodle Courses.

## Assessments

5 Assignments	70%
Project	30%
Extra credit	1%

## Assignments (70%)

There are five homework assignments. Each homework contributes 15% to the final grade, except for Homework 4, which contributes 10%.

- **Homework 1:** Due June 10
- **Homework 2:** Due June 16
- **Homework 3:** Due June 23
- **Homework 4:** Due June 30
- **Homework 5:** Due July 6

## Project (30%)

This is an individual project. Your task is to prepare a guidance report on a specific industry—or a particular firm—focused on the third quarter of 2025. You may choose any U.S. industry or company. Once selected, you must identify and justify the **data sources** that are suitable for your analysis. CapIQ is a valuable data source, but you are welcome to use other sources as well.

- **Industry or firm selection and data proposal** are due by **June 13** (worth **5%** of your final grade).
- You must schedule a **15-minute Zoom presentation** (including Q&A) during the week of **June 30 – July 4**.
  - If you're unavailable that week, you may submit a recording, but you must request approval by **June 6**.
- The **final report** (maximum 5 pages) is due on **July 6** (worth **10%**).
- The **presentation** is worth **15%** of your final grade.

Please note that **late submissions on any requirement will incur a penalty of 10% of the maximum possible credit**. Assignments may be submitted up to one day late. No extensions or accommodations will be granted.

### **Extra Credit (1%)**

This is an asynchronous course, so attendance is not required. However, you are encouraged to use the course forum on the Moodle to ask questions. Active participation in the forum may earn you extra credit, awarded at my discretion.

### **Rules for Correspondence**

When you send an e-mail to me, please remember the following:

- Use only your Brandeis email account.
- All emails should have the following on the subject line: **Bus 51a:**
- If your email includes attachments, please list the names of attached files in your email.
- Be polite, respectful, and professional, use an appropriate greeting, and sign your full name.

**Course Overview: This course provides a high-level overview of key data analytics concepts. All materials are available on Moodle.**

1. Data Cleaning and Transformation using Power Query
2. Data Modeling and Analysis with Power Pivot (and Power BI)
3. Introduction to DAX Measures
4. Data Profiling Techniques
5. Fundamentals of Probability and Statistical Inference
6. Basic Regression Analysis

### **University Policies**

*Academic Integrity:* You are expected to be honest in all of your academic work. Please consult [Brandeis Rights and Responsibilities](#) for all policies and procedures related to academic integrity. Students may be required to submit work to [TurnItIn.com](#) software to verify originality. Allegations of alleged academic dishonesty will be forwarded to the director of academic integrity. Sanctions for

academic dishonesty can include failing grades and/or suspension from the university. [Citation and research assistance](#) can be found on the [university library website](#)

**Special Accommodation:** Brandeis seeks to welcome and include all students. If you are a student who needs accommodations as outlined in an accommodations letter, please talk with me and present your letter of accommodation as soon as you can. I want to support you. In order to provide test accommodations, I need the letter more than 48 hours in advance. I want to provide your accommodations, but cannot do so retroactively. If you have questions about documenting a disability or requesting accommodations, please contact Student Accessibility Support at 781-736-3470 or [access@brandeis.edu](mailto:access@brandeis.edu).

**Library:** The Brandeis Library collections and staff offer resources and services to support Brandeis students, faculty and staff. These include workshops, consultations, collaboration, materials and instruction on emerging trends in technologies such as machine learning, emerging trends in research such as data visualization, and emerging trends in scholarship such as open access. Librarians at the Circulation Desk, Research Help Desk, Archives & Special Collections, Sound & Image Media Studios, MakerLab, AutomationLab, and Digital Scholarship Lab are available to help you. <https://www.brandeis.edu/library/about/index.html>.

**Student Support:** Brandeis University is committed to supporting all our students so they can thrive. The following resources are available to help with the many academic and non-academic factors that contribute to student success (finances, health, food supply, housing, mental health counseling, academic advising, physical and social activities, etc.). Please explore the many links on this Support at Brandeis page (<https://www.brandeis.edu/support/undergraduate-students/browse.html>) to find out more about the resources that Brandeis provides to help you and your classmates to achieve success.

**Counseling Services:** Assessments, Short Term Stabilization, Group Therapy, Case Management, Urgent Care, Medication Evaluation and Management, Community Counselor, Consultation phone calls. [www.brandeis.edu/counseling](http://www.brandeis.edu/counseling)

Amy Scobie-Carroll, LICSW (Director)

Peining Lo-Bromberg, MSW, LICSW, Community Therapist