

TEACHING STATEMENT

Yuan Qu

Department of Management Science and Information Systems
Business School, Rutgers University

During my long school journey since childhood, I have always been inspired by many great teachers, not only by the knowledge they taught me but also by their way of thinking and attitude toward the changing world. Their passion and commitment to me deeply affected me and changed my life.

If I need to write down the reasons that motivate me in the academic world, teaching must be at the top of the list. The most wonderful experiences that I had were the eureka moments. Like magic, a finger-snapping clears all the puzzles in my mind. Teaching is a process that can bring inspiration to other people. When I stand in front of the whiteboard and see the sparkles in students' eyes, I can feel it. Besides my eureka moments, this feeling gives me great satisfaction and a sense of achievement.

It has been a great pleasure and an invaluable experience to instruct students. While studying at the Management Science and Information Systems Department, I have developed my teaching and mentoring skills in several ways. I have taught 13 undergraduate classes and one graduate class and served as a grader for two graduate-level courses. In addition to presenting at department seminars, group meetings, and conferences. These have given me the confidence to teach various courses and contribute to your department's teaching mission.

Teaching Philosophy

My teaching philosophy has been formed through my experiences as a student, teacher, and entrepreneur. As a student, I hope the theoretical materials can be explained in plain expression, and more real-world examples would be great. As an instructor, I find that the interpretive learning process is critical, encouraging students' enthusiasm and letting them know the basic usage of related tools. As a previous entrepreneur during my undergraduate time, I sincerely feel that there is a huge gap between what we learned from school and what we need to do in a real job.

To address the gap between theories and practices, I develop tools and introduce practical analysis to my students. For the Management Information System course, I developed two websites for students to practice their SQL skills and set up lab practice. The platform can provide a production environment and allow them to access the real database. Besides the statistical knowledge, I also give two sessions of R for the Business Research Methods course, which will enable students to use advanced analytical tools to build up complex analysis rather than the toy experiment.

I believe the following guidelines are crucial for effective teaching:

1. **Engagement**

Making the education process interactive can make the students more engaged and concentrated and assess whether the students understand clearly. In the classroom, I encourage the participation of students and engage them through questions during my lectures. Also, I use homework and team presentations to provide students with hands-on experiences in applying analytical techniques to solve concrete real-world problems

2. **Student focus**

The students within the same classroom may have different majors and backgrounds. It is always essential to know the students' diverse backgrounds and understand why they are taking the course. The content of the course materials needs to be adapted to their respective backgrounds, whether from accounting, finance, supply chain, or marketing.

3. **Relevance**

During the lecture, we may have some mathematical formulations and theories providing a solid background of the materials, which may be far from understandable for real business operations. I want to ensure that my students can realize that what they learn in the classroom is as relevant to them as the real world around them. Presenting various real-world applications and examples will be helpful.

4. **Inspiration**

I want to share my passion for research and industrial experience for the given topic to inspire students. Their enthusiasm and innovation are the best way to learn new knowledge, methodologies, and applications.

5. **Connection**

The essence of learning is the connection between teachers and students. Besides regular class time, I make myself easily accessible to students. When they have difficulties with their study, I'm always there to help.

Teaching Accomplishments

I started teaching at Rutgers University in Fall 2019 as a Part-time Lecturer. I kept teaching two courses each semester and was promoted to 50%-instructor in Fall 2021. Generally, for each course, my responsibilities include designing the syllabus, assignments, and exam papers, giving two 1.5-hour lectures every week, and grading students' homework and exams. I have taught four different undergraduate and graduate courses across Rutgers New Brunswick and Newark campuses for the past five years. The teaching experience enriches my teaching skills in complementary ways. Indeed, I learned how to teach technical concepts to non-technical students through intro-level classes, while I can also explain cutting-edge technical material by teaching advanced topics. All of my classes have received good evaluations, which I specify as follows:

- Graduate Course: Business Data Management (22:544:603)
Fall 2019, Newark, offline
- Undergraduate Course: Statistical Method in Business (33:136:385)
Fall 2019, New Brunswick, offline
- Undergraduate Course: Management Information System (33:136:370)
Spring 2020 – Spring 2022, New Brunswick, online & mixed
- Undergraduate Course: Production and Operations Management (29:623:311)
Fall 2022 – Spring 2023, Newark, offline

I collect feedback from students in my classes, which helps me continually evaluate and improve my teaching skill. I am glad I can help my students in their learning processes, as some sample comments they expressed in the evaluation survey:

- “The group project was a cool way of seeing statistics in real life”
- “The professor was lenient and helped the students out with practical aspects of the coding assignment to make sure we weren't left behind.”
- “He made a 3-hour night class enjoyable. I liked the real-life application that we learned through this class. I enjoyed learning how to use R Studio.”
- “Yuan was very helpful and attentive with his students – he answered questions fast and was really there for his students”
- “The excel part is very useful. Applying this for future surveys or finding data would help me a lot now so that I can use excel to examine which particular topic is either more popular or has a better impact on people.”
- “I enjoyed learning about SQL and traversing databases the most. I think I will be doing further studies or pursuing work in this field, mainly due to this class.”
- “Professor responds to our questions effectively, and he gives us clear instructions. His recorded videos are clear. And the best point is he always uses his experience from using databases to illustrate the topic. I learned a lot from this course.”

Furthermore, I have given technical talks and presentations at professional conferences (INFORMS Annual Meeting 2019 & 2021), workshops, seminar classes, group meetings, and industry research labs. These forums have given me opportunities to improve my presentation skills. Also, I was a research intern at Allianz Partners. The experience helps enrich my class materials since students welcome industry practice.

Teaching Preference

Due to my solid academic training in both optimization and business analytics, abundant teaching and research experiences, and entrepreneurial experience, I am able and willing to teach various courses. I would like to teach undergraduate and graduate courses such as

- Database-related courses (Management Information Systems, Business Data Management)
- Statistics-related courses (Probability, Business Research Methods)
- Data Mining related courses (Data Mining, Business Forecasting)
- Optimization and operations management related courses (Production and Operations Management, Optimization Models, Linear Programming, Revenue Management)

Overall, I am looking forward to the opportunity to teach and advise students and help them reach their full potential and dreams.