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Teaching Statement

Teaching Philosophy

Starting from 2009, I have taught a variety of courses with different positions and have interacted with a broad range of students from various cultural and educational backgrounds. Through these experiences, I have developed my motto as "if you know well and communicate well, you teach well". As I reflect upon my own experiences, I can briefly reduce my teaching philosophy to two main tenets: (i) knowledge of the material and (ii) a strong focus on communication with students. Throughout all course preparation process; promoting the engagement of students, boosting the interactivity and improving the quality of materials rank in priority. Teaching-oriented meetings and additional reading on the pedagogy research are back bones of the further improvement of my teaching skill.

As an instructor, I believe that my most important task is to keep my students engaged in class and help them maintain a certain level of performance without overwhelming them throughout the full semester. To achieve this, I put a special effort to instill their confidence in courses at the very first day of classes. Prior to each class, I prepare a detailed outline that I use to teach the necessary material for the lesson along with some sample problems ranging from the easy to the more challenging ones. Additionally, I prepare examples geared toward the students' majors to motivate students. Another way I try to encourage engagement is by telling useful stories in my lectures that illustrate key concepts and help to make the material more relatable and memorable. For an efficient teaching delivery, I also try to incorporate interactive elements into my lectures, such as group activities and discussions, to keep students actively involved in the learning process. Additionally, I place a strong emphasis on the importance of understanding conceptual topics in my class. To facilitate this, I often dedicate more time to discussion and encourage students to ask questions and share their own insights on the material.

In my lectures, I follow a very simple yet powerful method. I always begin with why we need this subject and where it will take us, as well as what the central theme of the day will be. I establish the subject from scratch by constantly posing questions and emphasizing the connections with the previous sections. Since we walk together, students do not rush to write down the material and better focus on the content. With my ongoing and endless curiosity on theater, I use some special tricks like moderating the tone of my voice, walking around the classroom and making gestures and facial expressions like an actor on the stage to receive the attention of students.

Personally, I am interested in developing both undergraduate and graduate level statistics and data science courses to be a fertile statistician having ability to cope with real life problems in the era of big data. I strongly believe that all before and after class preparations, animated by in class teaching experiences establish a successful teaching career as an integral part of being a professional statistician successfully. Hence, by following my plans, I am excited to continue my academic career in becoming a better lecturer.

Teaching Career

Recently, I have been workings as a university teacher of record for one year in the School of Mathematics at the University of Edinburgh since 2022 March. The core part of my role is teaching/organising statistical courses and supervising dissertation projects in all educational levels. After joining to the School of Mathematics, I experienced both **undergraduate (SCQF-Level 8)** and **master level (SCQF-Level 11)** courses with diverse content including different programming tools (R and Python). I have organised and re-designed two courses in addition to co-teaching and tutoring several courses with colleagues. To illustrate, I was the course organizer of **Machine Learning with Python** (Graduate Level) during 2022-2023 academic year. For the re-advancing my theoretical and computational skills, in addition to my routine duties, I genuinely have involved in an undergraduate and PhD level Statistics training course, **Regression and Simulation Methods**. Additionally, my teaching background and other teaching experiences on Statistical and Mathematical courses can be seen below.

Istinye University (2022)

I had a chance to sharpen my online teaching experience with the experience of new course designs. For 2022-2023 Fall semester, I designed an undergraduate level course called **AI, Data and Ethics**. I created the course including group project style assessment, suggested readings and guest lecturers for specific topics such as responsible machine learning. For the Spring term, I designed another online undergraduate level course, **Data Visualization with R** as an elective one. The lecture materials are created by using open-source R-based written books by using R for teaching purposes.

TED University (2021-2022)

Starting with the Fall semester of 2021-2022 academic year, I had a chance to improve my remote teaching skills by leading an undergraduate level **Statistical Learning with R** course for students with different backgrounds. After completing the fall semester with a high survey results, I continued to give the course online by creating a graduate level version by including some data science tools. Additionally, the lecture materials are prepared by using Rmarkdown for weekly slides, certain templates are used by students for the preparation of both individual or group projects. Even if the participation rate was not too high for all semesters, for a certain number of students, the course satisfactory is reasonable to highlight. For the overall evaluation results for the given courses (except last semester) as follows:

Semester	Evaluation Score	Participation
2022-2023 Fall	5.00	16%
2021-2022 Spring (G)	4.79	27%
2021-2022 Spring (UG)	4.42	9%
2020-2021 Fall	4.74	14%

Istanbul Bilgi University (2021)

During the Spring term of 2020-2021 academic year, I gave a remote introductory level Statistical course for the psychology students at Istanbul Bilgi University. The course code was CMN 168 and title was **Computational and Mathematical Numeracy for Social Scientists**. All the lectures are done with the prepared weekly presentations and additional online **Kahoot games**. During the lectures, I used the **Jamboard** tool to create on-time lecture notes in addition to the beforehand prepared notes. The course was successfully completed even if it was my first remote experience (overall score 3.05/5.00) with more than 100 students.

Atılım University (2009-2019)

I had ten-year concrete experience on teaching mathematics as a teaching assistant at Mathematics department of Atılım University. As a teaching assistant, I have gained experience about preparing homework, reading exam and quiz papers and other related academic duties that would be worthwhile for my future academic career. During these years, I had successfully taught a large variety of courses from introductory service courses to some upper level math courses. In my last year within two semesters, I had a fruitful practice for giving the introductory statistics course as a lecturer, with very high evaluation survey results from my students.

During these years, I improved my course organizing and planning skills through these years, with the help of upper level math service courses. In other words, I experienced the importance of coordinating my colleagues before lecturing in the class for various service courses. Additionally, I prepared vast amount of examples to motivate students during the lecture. For instance, in calculus lectures for engineering students, I bring a broad set of questions gathered from various types of sources from the announcement course materials to different qualified open course supplies in recitation hours. As another example, I prepared with my colleague in that period, weekly worksheets to make a significant connection between self study and laboratory hours to assist students in numerical methods course. My previous experience is in the context of service courses generally, including undergraduate level of **Calculus**, **Mathematical Analysis**, **Numerical Analysis**, **Introduction to Probability and Statistics**, **Introduction to Mathematical Finance**.

Personal Efforts

In addition to above mentioned course experiences, I am always keen on to organize online lectures regarding the programming languages. Specifically, for Turkish speaking audience, I arranged various online courses about **R and Python programming** during 2020-2022. The main audience of my online lectures are students from different universities with diverse backgrounds who want to learn programming tools for doing Data Science. To keep my hands warm, I am trying to create open-source lecture materials individually including above-mentioned course experiences and personal research interests. I am very keen on to be a part of the society having a positive mindset for the open-source lecture material preparation and the importance of reproducibility for teaching. I believe, my additional growing efforts regarding the teaching turned into a long-lasting habit for my career.