## EXPLORING MAIN TOPICS IN STUDENT COURSE REVIEWS AT WATERLOO UNIVERSITY

What makes a course unforgettable? Is it the ease of the material, the challenge of the content, or the way it prepares students for the future? The answers lie buried in thousands of course reviews, waiting to be uncovered. Imagine stepping into the role of a data scientist, ready to decode the experiences of students in two of Waterloo University's most renowned courses: ECON 101 and CS 115. These courses represent the diverse academic journeys at Waterloo, but what truly defines them? Do students find them useful? Difficult? Life-changing? Your mission is to uncover the topics that matter most and provide future students with invaluable insights into what these courses offer.

## Your Role:

You'll take on the role of a researcher, ready to explore real-world data analytics techniques. Using the provided dataset of course reviews, your challenge is to preprocess and model the data to reveal the most common and impactful topics discussed in student feedback.

## **Deliverable:**

The University of Waterloo needs your expertise to produce a comprehensive, visually engaging report. Your task is to identify and name the most discussed topics, compare the themes across ECON 101 and CS 115, and determine if course difficulty truly dominates the conversation. Using techniques like Non-Negative Matrix Factorization (NMF), your analysis will turn raw text into actionable insights.

## Why It Matters:

Your analysis will help future students navigate their academic journey with confidence by highlighting key themes in course experiences. It will also showcase your ability to apply data science techniques to solve practical problems in education. Get ready to dive into this exciting case study and make a meaningful impact on student decision-making at the University of Waterloo!