

## Alternative grading for Probability and Statistics.

### Abstract

In the academic year 2023/24, Noela Müller and I have implemented alternative grading (see e.g. [1]) in a course for 300 first year Computer Science students at the TU/e. In our new competency-based grading system, the learning goals of the course are formulated in terms of competencies, which are then tested separately by small weekly tests with multiple attempts. We have experienced many claimed benefits of competency-based grading first-hand, including: students knew exactly what was expected from them; keeping up with the course was strongly encouraged; and students used feedback to improve. In this talk, I will explain our design and implementation of the competency-based grading system.

[1] Clark, D., & Talbert, R. (2023). Grading for growth. Taylor & Francis.

### Speaker

Nelly Litvak is professor in Algorithms for Complex Networks and has a background in Applied Probability and Stochastic Operations Research. She works on mathematical methods and algorithms for complex networks, such as social networks and the WWW. Nelly Litvak received her PhD from TU/e / EURANDOM in 2002 and joined the University of Twente, where she became an Associate Professor in 2012. She joined the TU/e as a part-time professor in 2017. Her teaching career began in 1995, at the Lobachevsky State University of Nizhni Novgorod, Russia. She has developed many courses and innovative teaching methods. Nelly is an author of several best-selling non-fiction books. She has also given many public lectures about mathematics and education.

