



## DigiEduHack Challenge Data Exploitation

# Using Neurodiverse Superpower to sniff out bad courses and fix them!

## Neurodiverse students have a superpower in detecting poorly organised courses. Let's use this!

How can universities find out which courses suffer from poor organisation and which lecturer needs extra support? Neurodiverse students are a great detector in finding these courses as they struggle the most. Can we use this fact to improve course organisation?

### Co-create the future of education together with us!

DigiEduHack connects educational professionals, innovators and entrepreneurs to co-create the future of education. Solve the challenge and turn your vision into reality and showcase your solutions. Experts and mentors will support your team during the 24 hours in finding the best solutions to the challenges. Winner TU Delft Hackathon wins €2500 + selection spot YES!Delft Validation Lab. The best international team can win €5000 in a global award contest!

### How to prepare for the challenge?

Read up on the challenges Neurodiverse students face in higher (engineering) education and what can be done in terms of inclusive education to reduce these challenges. If you identify as neurodiverse, your experiences are the best preparation and you the best resource any team can have!

### Why is it important to find a solution to this challenge?

Research shows that Neurodiverse students (who identify as autistic, dyslexic or with ADHD) are overrepresented in engineering education. They thrive in well-organised environments and enjoy challenges and problem solving providing a welcome new perspective they look at the world differently. However, when a course subject is badly organised, they struggle more than

neurotypical students in finding their way through and often obtain lower grades, fail or drop out even though they are capable of passing the course. Currently, students are unjustly labelled as poor students, courses unjustly labelled as too difficult and lecturers unjustly labelled as bad lecturers when in fact the course is simply badly organised, structured or misaligned. This misidentification of a problem inevitably leads to poor solutions.

### **What is the possible impact of a good solution?**

Finding and fixing courses that suffer from disorganisation can help overall student performance, satisfaction and reduce unnecessary stress and delays. It does not just help neurodiverse students, it will help all students. As a result, overall student wellbeing increases as well as their performance which is a win-win situation all around.

### **What is the expected outcome of this challenge?**

Possible solutions could be data analysis tools that use big data to differentiate between poorly organised courses from other problematic courses, so that the right measures can be taken. A second step could be in depth analyses tools that can identify all unnecessary thresholds and issues and gives clear recommendations as to what improvements can be made to the course based on all available data on the course or other ways to assist lectures in making their course much more accessible.