

HAS101X – Satisfaction survey (2024-2025)

Course name. Mathematical tools for sciences and engineering.

Institution. Faculty of Sciences of Montpellier.

Audience. Chemistry and health students.

Level. 1st year of B.Sc.

Role. Tutorial classes, exams writing and marking.

Contents

Chap. 1 – Basics of logical reasoning

Connectives, quantifiers, proof by contradiction, etc.

Chap. 2 – Fundamentals of sets and functions

Chap. 3 – Continuous functions

General theorems, including the intermediate value theorem, and the continuous image of an interval.

Chap. 4 – Differentiable functions

General theorems, chain rule, mean value theorem, and the inverse function theorem. Concept of C^∞ functions and basics of Taylor's formula.

Chap. 5 – Classical functions overview

Power functions, polynomials, exponential, logarithm, trigonometric functions, and their inverses.

Chap. 6 – Integral calculus : properties and techniques

Integration by parts and change of variables.

Chap. 7 – First-order ordinary differential equations

Non-linear equations, separation of variables, etc.

Objectives. In pursuit of my doctoral degree and with the goal of becoming a university lecturer, I have conducted this satisfaction survey for the second consecutive year to gather valuable feedback from students. This feedback plays a key role in evaluating the effectiveness of my teaching methods and supporting my ongoing professional development in academia. By analyzing student responses, I aim to refine and improve my instructional techniques, ensuring they align with the high standards expected in educational settings.

Furthermore, this survey serves an additional, yet significant, purpose : it provides potential recruiters with a transparent and authentic perspective on my teaching capabilities as experienced directly by students. The feedback offers qualitative insights into various aspects of my pedagogical approach, such as clarity of instruction, relevance of materials, effectiveness of sessions, and overall student engagement and satisfaction.

This year, the survey was completed by 27 students out of the 32 who attended regularly (from a total of 40 enrolled), and the results can be found on the following pages.

Pedagogical method. My educational strategy is centered on interactive, problem-solving approaches designed to enhance both understanding and student engagement. Initially, I aimed to implement group-based exercises where students would prepare and present their work at the board, fostering collaboration and peer learning. However, given the limited maturity and seriousness often observed at this stage of their studies (first year), this group-based approach proved less effective than anticipated.

To address this challenge, I adapted my teaching methods by dedicating more time to individual interactions with students. I worked closely with each one to ensure they properly understood and applied the material, providing tailored guidance and support during their presentations. This personalized approach helped compensate for the challenges of group work and ensured that no student was left behind.

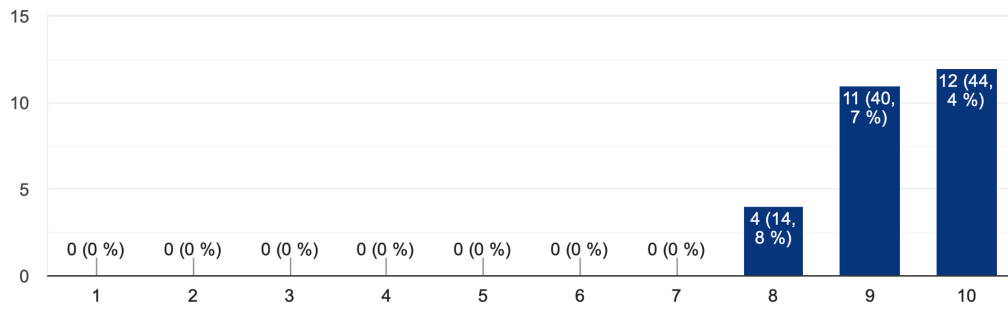
Additionally, I increased the frequency of small quizzes and controlled assessments to maintain engagement, reinforce key concepts, and prepare students effectively for examinations. These assessments, which could contribute bonus points to midterm scores, offered regular feedback and an opportunity to instill good study habits early on. This consistent feedback loop allowed me to promptly identify and address educational difficulties while guiding students toward effective learning strategies.

Survey results.

Final grade for my teachings : **9.29/10.**

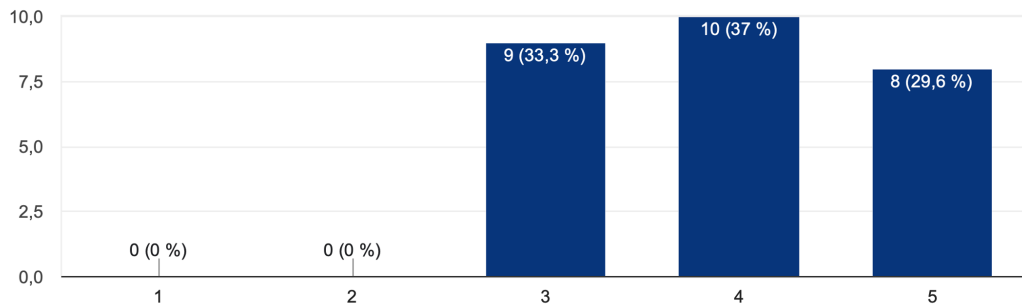
Note finale : ta satisfaction globale concernant ce TD et l'encadrant ? (Final grade: your overall satisfaction with this tutorial and the supervisor?)

27 réponses



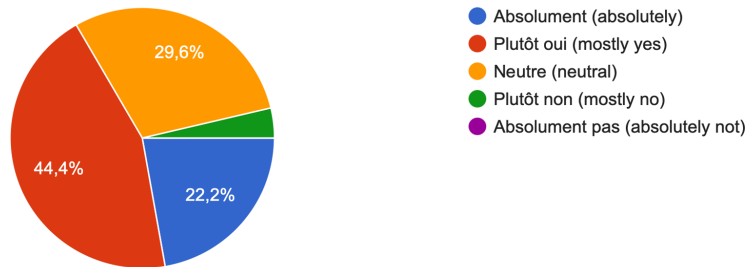
Niveau d'implication en TD (involvement in tutorial classes)

27 réponses

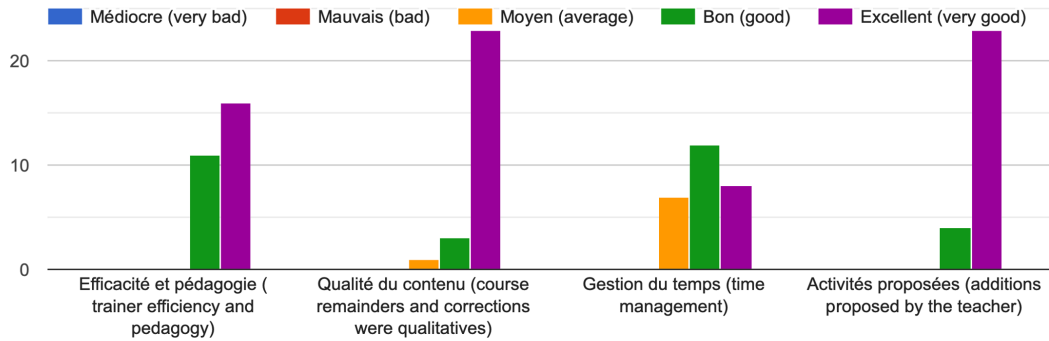


Est-ce que votre vision des mathématiques a évolué positivement entre le début et la fin du TD ? (Has your vision of mathematics evolved positively between the start and the end of the tutorial?)

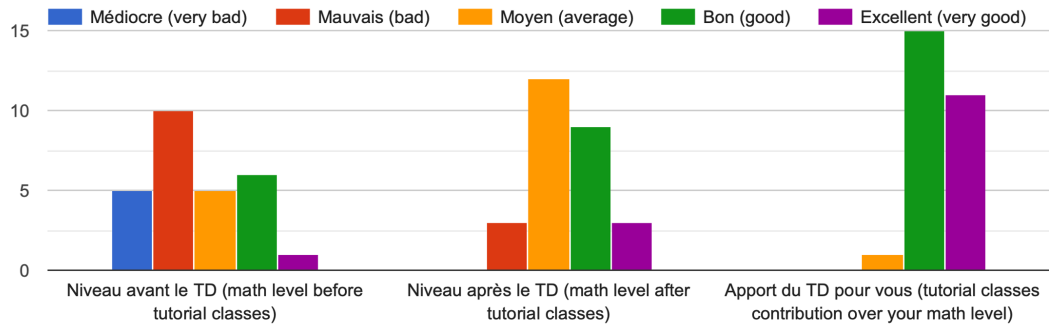
27 réponses



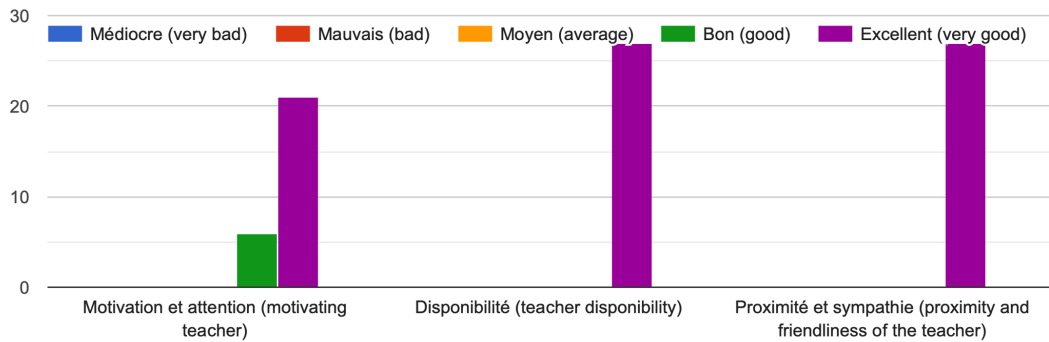
Compétences et réactivité de l'enseignant (trainer skills and responsiveness)



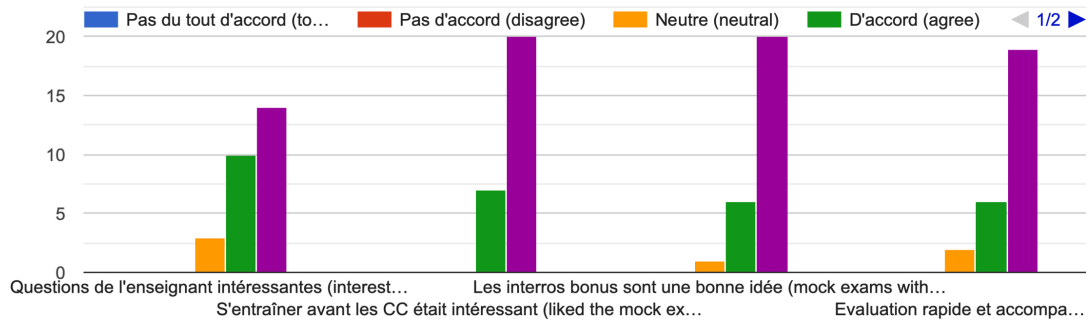
Contribution à l'apprentissage ce semestre (contribution to learning)



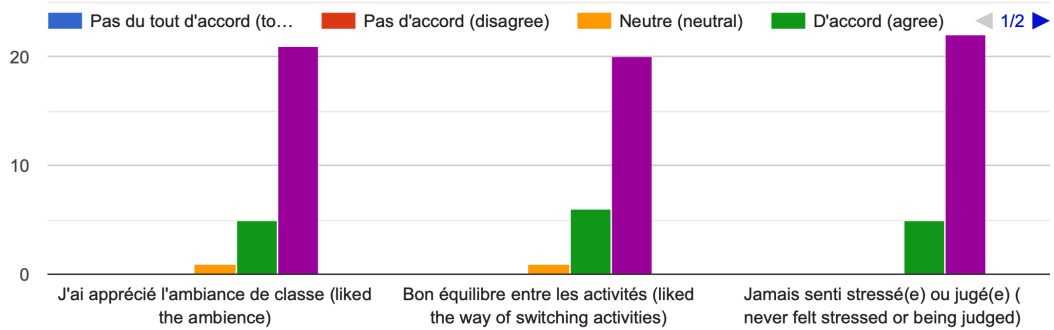
Qualités humaines de l'enseignant (trainer human qualities)



Evaluation (assessment)

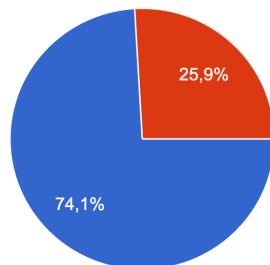


Ambiance et dispositifs mis-en-place (atmosphere and activities)



Souhaiteriez-vous un jour avoir votre encadrant de nouveau en CM ou TD ? (Would you like to have your teacher back in lectures or tutorial classes one day?)

27 réponses



- Absolument, c'est un des meilleurs profs que j'ai eu ! (Absolutely, he is one of t...
- Oui, le TD m'a plu et ses explications étaient claires (Yes, I liked the tutorial...
- Neutre, je m'en fous je veux juste valider mon année (Neutral, I don't care, I just...
- Non, je n'ai pas apprécié l'encadrant et sa manière de gérer le cours (No, I di...
- Absolument pas, si je l'ai je change de groupe (Absolutely not, if I have him l'...

Positive aspects.

1. **Dedication and involvement** : Students appreciate my strong investment in their success. Many highlighted my commitment to helping them, especially those struggling, and my ability to motivate them to improve.
2. **Teaching style** : My interactive methods, such as engaging students in discussions and making mathematics accessible, are highly valued. Several students mentioned that my teaching made the subject more enjoyable and less intimidating.
3. **Approachability and empathy** : Students appreciated my proximity and humanity. They felt supported and encouraged by my approachable attitude, which stood out compared to other professors.
4. **Passion for teaching** : My enthusiasm and love for mathematics inspire students. Some mentioned feeling motivated to explore the subject further due to the passion I bring to the classroom.
5. **Classroom atmosphere** : Many students enjoyed the positive and dynamic environment in my tutorials. They felt comfortable asking questions and participating actively.
6. **Extra efforts** : Students valued my unique initiatives, such as the satisfaction questionnaire and even casual moments like organizing snacks, which added a personal touch to the learning experience.
7. **Support and encouragement** : Even students who struggled or felt disconnected from the subject appreciated the encouragement I provided. They noted my ability to adapt to their pace and individual needs.

Suggestions for improvement.

1. **Time management** : Several students suggested improving the pacing of lectures and tutorials to avoid delays and ensure all planned material is covered efficiently.
2. **Structure in lectures** : Students recommended structuring lectures more clearly, especially when transitioning to higher-level responsibilities such as delivering lectures.
3. **Prioritizing exercises** : In tutorials, focusing on the most challenging exercises rather than reviewing every single one could improve the overall pace and effectiveness.
4. **Balancing content** : While some students appreciated the accessible level of the course, others noted that the program could include slightly more advanced topics for those who are already comfortable with the basics.

Personal note.

I am proud of the growth I've experienced as an educator. This year, I focused on establishing clearer authority in the classroom, which allowed for a more productive and organized learning environment. These adjustments made a noticeable difference in how the semester unfolded, both for me and my students.

I was fortunate to teach a wonderful group of students this year. While many of them were not naturally inclined toward mathematics, it was incredibly rewarding to see their mindset evolve throughout the semester. Through patience and constant encouragement, I was able to rekindle their interest and even hope in the subject. Witnessing their progress and newfound confidence was one of the most fulfilling aspects of this experience.

To celebrate the end of the semester and to show my gratitude, I organized a small gathering after the final continuous assessment. Sharing a snack together was a simple yet heartfelt way to thank them for their efforts and engagement throughout the semester.

Some of the nicest comments (translated).

- "He is a great teacher with a big heart who genuinely wants his students to succeed. However, he can sometimes be overwhelmed by time and his empathetic nature. That being said, he is an amazing teacher, and his kindness remains his greatest strength."
- "He is a very humane and empathetic person, and for me, that's what makes the difference between a good teacher and an excellent one. I'd rather have a teacher who may be "less experienced," like a PhD student, but is human, rather than a senior professor with 30 years of experience in mathematics who leaves no room for interaction. Some may prefer the latter, but for me, learning is effective when it's enjoyable, not mechanical..."

- "For me, a mediocre teacher merely talks, a good teacher knows how to explain, an excellent teacher illustrates their points, but an exceptional teacher inspires. With you, I constantly feel the love for mathematics in every one of your lessons, and that is truly a source of inspiration for me. Thank you for sharing this passion that makes me want to explore this discipline further."
- "The best math professor."
- "Thank you so much for this first semester. I think it's partly thanks to you that I didn't quit university. Thank you also for taking the time to share your journey with me and helping me understand that it's normal to feel lost :)"
- "I am an international student, and I earned my medical degree in Vietnam. Now, I am restarting my medical career in France. If I could choose again, I would study a LAS in Mathematics and Applications because I used to specialize in mathematics and loved this subject. However, since my French level was not yet sufficient, I was only admitted into my current program =))). Lastly, I want to tell you that I am deeply impressed by a teacher as passionate and dedicated as you."
- "I just want to say that the teacher is truly amazing. He takes the time to help and understand his students, and I am very grateful to him because he didn't give up on me despite my delays. I also want to mention that your tutorials are unlike any others—they are very lively and push students to participate and improve every time. You encourage students to learn and test their knowledge in a fun way, while also valuing them at the end and giving excellent advice. I may be exaggerating because I'm very expressive at times... But I really want to thank you, sir."
- "Here's a true statistic : We are a LAS group, so we have four science subjects, three of which are classified as competitive : Physics, General Chemistry, and Biology. Math only counts toward the general average to pass the year. Yet, we were often fewer students in the Physics, Chemistry, and Biology tutorials than in Math. Some of us attended the Math tutorials but skipped the Chemistry tutorials afterward (even though Chemistry is competitive). This shows that your tutorial sessions were engaging and managed to stand out among the other courses (even the competitive ones). For that, respect! This statistic rewards your effort to make the class interesting. Good luck with your goals—you'll make a great maître de conférences, I'm sure of it!"
- "You are an outstanding teacher with a unique personality. If you ever want to visit my island of Tahiti, feel free to contact me via email! I would be delighted to guide you and perhaps show you around my Fenua :-)"