

# Teaching Philosophy

The biggest motivation behind my desire to teach is the enjoyment of helping others. This is for two reasons: one is the general satisfaction of having helped another person, the other is that helping someone learn is a very interesting problem to solve. This turns out to be a very difficult problem when you account for the wide diversity among students. All students have the capacity to succeed but have different strengths and different goals. It is my job to try and support all of them to the best of my ability: to make them feel supported, that growth is possible, and that they can engage successfully in the field. My course policies and the way I teach are defined by these aspects of promoting a growth mindset, and supporting students so that they can reach their potential and engage in the field.

## Growth through frequent practice

To emphasize a growth mindset, I usually start off my semester by following a growth focused icebreaker<sup>1</sup>. I ask the class to discuss with each other: “What is something you are good at” and then “How did you get better at it?”. As expected, the dominant answers to the second question include “practice”, “effort”, and “time”. This lesson is something I reiterate to students: the best way to get better at something is to practice. Practice is how they will get better at and develop mastery of the course material, even if they aren’t as good in the beginning. If they practice, then they will get better.

Practice is so important for learning that I try to get at least a quarter or a third of each class period dedicated to practice problems. Having students engage with the material directly helps them retain and integrate this knowledge better than just listening to me lecture. To take full advantage of the time I have in class for these activities, I integrate the activities to do more than just test “did you process and understand everything I just said”. **These activities are a place where students can build on top of knowledge and learn “on their own”. Students can make connections in the material themselves.** By making these connections themselves, they gain a better appreciation and understanding of the material than if I had just recited these lessons to them. These activities are also a great opportunity for course staff to walk around and answer questions, which helps ensure that no one is left behind.

Frequent practice also goes into how I design assessments. I try to have some programming assessments due every week. I want to make people better programmers, and they will become better programmers by practicing programming. I also have low-stake concept quizzes due every week that help students self-assess how well they understand what was covered in class in the last week. These frequently encourage students to ask questions about the material once they realize their understanding was not as complete as they thought it was.

## Growth through mastery learning

My favorite way to encourage growth is with grading policies that give students space to grow and learn from mistakes. Students get feedback and can reassess until they have proven they have mastered the material. The key here is that this greatly alleviates time pressure on students. As long as they could demonstrate mastery of all subjects by the end of the semester, it does not matter to me if they struggled in the beginning to achieve this mastery.

---

<sup>1</sup> <https://gradingforgrowth.com/p/a-growth-focused-icebreaker>

One way I currently implement this mastery-based approach is by allowing students to re-open one previous assignment per week for resubmission. That assignment will remain open for a week only, ensuring that students do not get overwhelmed by having too many assignments to work on at once and encouraging students to not put everything off until the end of the term. This means that even if an assignment didn't go well in the beginning of the semester, they can return to that assignment by the end of the course to show they have grown. This also allows students who suffer personal issues more chances to catch back up with the course.

Another course policy that allows students to demonstrate growth is an exam clobber policy. Typically, my courses have at least one midterm and a final exam. The final exam is cumulative, which means the material that was on the midterm exam(s) will be on the final exam. If students are able to show a better performance on midterm content when they see it again on the final exam, then I will improve their midterm grade to reflect the growth they have experienced. This policy also helps alleviate the pressure many students face on the midterm, as they know they will have a chance at redemption if it does not go well for them.

## Individualized Support

Students are supported in various ways by the course. Whether it is the mastery policy that gives students time to grow and learn from mistakes, or whether it is through the typical channels of office hours, recitation and the course discussion board. I know there is more I can do than this, so I try to provide opportunities for individual support for students who need it.

Students can easily schedule 1-on-1 appointments with me to get the help they need. This can range from going over course material, talking about issues external to the course that are affecting their ability to engage, or sometimes they want advice about their career and life. I advertise these appointments several times over the course of the term to encourage students to reach out for help.

I try my best to be genuine, welcoming and supportive during lecture so that students feel comfortable to reach out, but not every student wants to meet with the instructor 1-on-1. To support students who are less able to self-advocate, I have started "student wellness efforts" that are mostly run by my TAs. Students can request 1-on-1's with a TA to seek out additional help, which allows me to scale the 1-on-1's to larger class sizes and also aids the fact that students may be more comfortable reaching out to the TA's who are students themselves. I also have these TAs gently reach out to students who seem to be struggling in the course, seeing if there is any way they can help and if the student would benefit from talking to me. These wellness efforts require careful management to make sure that the student to TA relationships stay professional and respectful, but these systems help me make sure students get the help they need in a course.

## Conclusion

I believe that the most important aspect of my teaching is the care that is put into helping students. Every time I can help a student, no matter how small their struggle is, it is a success and a big motivator for me to keep doing what I am doing. I can't do everything for the student but trying to puzzle out how I can support students to grow is a very interesting and rewarding puzzle to solve. I love what I do.