

Learning to Learn at MIT

excellent title

It was the end of my first semester at MIT; well, almost the end. There was one obstacle left: finals.

More specifically, there were three: 8.01, 3.091, and 18.01. Although the first semester at MIT was pass or no record, I was in real danger of failing. I had done ok in the semester, failing or barely passing most tests. I thought I had learned the material, but I was not able to solve the problems on the test. I had to step it up and give it my all in order to pass. I did not want to repeat a class – that would put me way behind; I would lose a semester of time here at MIT. In addition, because of the second semester credit limit, I could not easily repeat the class during the next semester while taking another class. I knew I had to pass.

can you clarify this? It's likely to confuse the reader, in the way it's stated. There's an important distinction between "failing" and "barely passing" most tests.

I did not really like the classes my first semester; I saw them as an unavoidable necessary evil of attending

do you mean that they're unavoidable?

(or) I recognize that I'm not destined

MIT. I was not good at math or problem solving in physics. I would not have been able to do an engineering degree. I loved my UROP and all of the other experiences of MIT and I learned a great deal from them and grew personally. However, the GIRs were the price of admission. Once I got through them it would be much easier and more fun.

verb tense

I worked hard in elementary and middle schools, but high school started too easy for me. I then coasted through Math class without really learning the material. The assessments did not really force me to learn; I only had to memorize the process. This put me at a disadvantage at MIT; my old methods of learning, or appearing to learn, did not really work. In addition, in high school, simple hard work, like putting the time in to do the reading and take notes, put me at an advantage. This did not seem to be true at MIT. In addition, I budgeted time for work to be completed. I cut corners to get it done in the time that I thought I should spend on it.

this shows good insights

I started to study the week before finals. That week there are classes, but no homework. This allowed me to study during the evenings after class. I started studying for 18.01 by going through every test, and redoing each problem. I did not have access to a blank copy of the test, so I covered up the test and worked on a blank sheet of paper. In high school, I would sometimes just read through the answer key to study. At MIT this strategy was not effective. As I was reading the answer key, I thought that the answer sounded obvious and that I knew it. However, when the test came, I could not remember how to solve such problems. I had to not kid myself, and actually try to do the problem. Another study procedure which I did not try was to do one test for the listed time without looking at the answer key at all. On a real test, if I do not know a problem, I struggle and search for the answer, using up all of the time. Sometime I stumble across the answer, and I usually get some partial credit on a problem. I think ~~this method takes up too much time and struggling for the answer does not help me learn the correct answer.~~ But as I was redoing the 18.01 tests, I became very worried because I forgot at least one step in 40% of the problems, and had no clue about another 30% of the problems. For these, I had to peek at the answer key and to reconstruct how to solve the problem, as well as try to memorize the steps.

"such problems" implies that you've described the type of problems you're referring to.

After classes ended on Thursday, it was time to get serious about studying for finals. The 8.01 was first on Monday. I had to find the best place to study. My room is not a good place to do work. My computer fills my entire desk space, so there is nowhere to work on paper. In addition, my roommates are often there and I cannot get anything done when there are other people around. MIT has lots of little areas to study. My dorm, Baker House, has a row of tables down the hall from my room. This is where I did a lot of my math p-sets during the semester. This was moderately successful. If I forgot something, I had easy access to my room. The area was somewhat isolated, but it was in the hallway, so people were always passing. Other students find a classroom to work in. I always seem to have bad luck, someone always interrupts me because there is a class scheduled in there. However, the Media

Lab recently moved to a new building, E14. The old building, E15, was now mostly vacant. I decided that my old lab would be the best place to study, so that night I found myself in E15-493. The area was desolated; no one was around in E15. There was a printer that I still had installed and a water fountain and bathroom nearby. Despite that there was no one around, I could close the door and just work. Time seemed to pass slowly, because I was doing a lot of work in that time. I could just sit there and hours would go by without anyone bothering me.

I spent the weekend studying in E15-493. I got up around 10, walked to the Media Lab and studied all day. I only left for a stretch break about every hour. Around dinnertime, I ran back to Baker to buy dinner, and then ran back to E15 to study. I stayed most nights until 2AM. The most stressful was the night before the final. I wanted to be prepared as I could be. As 2Am was approaching the night before the final, I went into E14 and started re-reading what I had written. I was careful not to just look at the answers and tell myself that I knew it, but I covered up the answers and tried to think how to solve it. I was exhausted when I walked through the desolate and cold night back to Baker to sleep.

I was also not distracted by my laptop. This was always a problem for me in high school and during the semester. I would always think of something unrelated to what I was doing and then I would look it up. Or I would be bored and I would open MSNBC.com to read something. By far the worst issue for my learning was that when I ran into difficulty with a problem; I would not struggle with the problem and focus; I would turn away from it to read something on the web. This was very bad for me. The pressure of needing to pass limited my web surfing, especially as the finals got closer.

this is a key point to bring out

[Another advantage] was that I had nothing scheduled during that weekend. One of my problems during the semester was that scheduled sessions take up a lot of time, up to double the length of the session. It takes time to travel there and back, which does not feel like much, but can be up to 15 minutes each direction. By far the biggest problem is that I had to arrange my schedule around it. If I

had less than an hour of time, I would not get started working. By the time I would have been set up, it would be time to go.

I was very nervous on Monday when my 8.01 final finally arrived. I was unsure about a lot of the problems. But when I talked to others afterward, who seemed far more prepared than I was, they said that they had trouble as well. This made me feel somewhat better. I wrote in my journal immediately after the final that I probably did better than I thought I did at the time.

After 8.01 there was not much time to rest. My 3.091 final was the next day. I only had about 20 hours to study for it. I thought that 3.091 was going to be the easiest of the finals, so I only left one afternoon and evening to study for it. That made studying that night very intense. The final ended up being more difficult than I thought it was going to be. I think I also made a mistake in what I was studying. Professor Sadoway ~~fed~~ ^{pd} us the information we need to know in the lectures. However, he ^{to be} tells us to read the textbook, which has a lot more information. However, that material was not really relevant. I should have focused on simply studying the material from the lectures.

In retrospect, was there some way for you to have known or predicted this?

After 3.091, I had two days to study for 18.01. In total, I wrote about 100 pages for 18.01, redoing problems until I was out of time. I did not remember much from that final since it was the last one. As soon as I was finished, I went home ~~(later that day)~~. I was glad to be done with the first semester of MIT, I just hoped that I did well enough in each class to pass. verb tense

At home, I kept refreshing Websis to see if the grades were posted. One by one they came online. I got a C in 3.091 and 18.01 and a B- in 8.01. I was very happy that I passed everything; that I did not have to redo any classes; that I could move ahead to the next semester. I was very surprised that I managed to get a B- in 8.01. I have no clue how that happened; I am guessing that it is due to homework.

great!

weighting of HW scores,

clarify what this means

There is so much going on at MIT that I cannot really keep up from week to week. This semester I must try not to slip behind. I know that I am not the only one. It is important to be up for each class fully awake and prepared. There are only 30 classes in a typical course – and learning what they are teaching will save hours off studying or being frustrated on a P-set. I need to spend the single hours between classes doing something productive. I need to be prepared to invest the time, however long it takes to understand a concept, while trying to not fall behind.

I am proud of those two weeks I spent studying. It was where I learned to focus. I am now one week into the second semester and focusing and studying of the hard material feels better. It now feels like I can master anything if I dedicate myself to it. If I spend all my time on something, and ignore external influences, like the flow of time, I can master whatever MIT throws at me. I no longer dread it. It feels fun to learn something complicated ^{which} I did not know before. I now feel like an engineering major might not only be doable, but fun. Perhaps some of this will wear out as the second semester continues, or maybe I will actually enjoy the math and physics classes now, since I will not be struggling as much.

Michael,

Your essay presents a very candid, very honest analysis of the changes you realized you needed to make in order to cope with – and succeed in – the academic demands of an MIT education.

The essay has a clear overall structure, and I see the basic idea at the core of the essay. However, the central theme ~~is~~ needs to be sharpened and the supporting details need to be reworked into a more focused narrative.

Omitting some of the details will actually strengthen the piece, by enabling the reader to see that each point is contributing to the overall theme of the piece.

Your prose is generally clear. However, I've noted some problems with phrasing, as well as some mechanical errors (e.g. verb tense).

over

overall structure: +

Theme / focus: ✓

Content / development: ✓

organization / coherence: ✓

audience: +

style / tone: +

articulation / phrasing: ✓

mechanics: ✓

overall mark: ✓