

## Week 12 & 13 Essay

MIT is a highly respected technical institution centered around science and technology; it is well regarded as one of, if not the, foremost school for traditional methods of engineering education. The Institute has repeatedly proven that its graduates are well prepared for the realms they chose to work in. An MIT education should not only prepare students for a professional careers, but also cultivate intellectual growth well beyond the standard, instill social growth so that personal interactions are productive, and give the students an insight as to all the opportunities available to them, as MIT graduates have a high chance of being granted these opportunities over graduates from other schools.

It is a baseline of any university to prepare students for their professional lives. MIT should and does do more. The Institute's aims should be to place students higher intellectually after four years than they would be nearly anywhere else and give them the basis to one day become an international leader in their respective fields. The way that an MIT graduate approaches a problem should be innovative and efficient; it is the thought process that must be disseminated just as much as the hard mathematics. A value must be placed on advancement of knowledge not just for the sake of passing the class, or getting a nicely padded GPA, but because there will be a time when this knowledge will be called into use, possibly to enrich worldwide scholarship.

MIT itself plays a minimal part in actively promoting this culture, but ensures its survival nonetheless. The people on campus create this style of academia. MIT's admission process does a fantastic job of selecting people who display and promote this lifestyle both on the student and faculty side. The raw material that comes in to MIT is quickly indoctrinated into this lifestyle and there are rarely rejections of it, as most MITers have always wanted a culture where they can

fully explore the power of their intellect. However MIT proper does play a huge role in the dissemination of thought process. The questions that are asked at MIT in tests, quizzes, and problem sets are often aimed at making the student come up with a way to solve it that can't be looked up in the textbook. It will be a lovely blend of the core ideas of the class, not a perfunctory memorization of basic formulas. Yes, it is possible for most students to pass the class using just the formulas, but the culture of wanting to intellectually excel will push the students further and make them want to understand and apply all the concepts in the class. Hence both the heavy MIT course load and the rich MIT culture are necessary, and successfully provided, to create outstanding scholars who can shape the future of their field.

All this refined intellectual power will be in vain if the proper social skills are not honed. MIT should offer students more ways to improve their communicative abilities with regard to their profession and their personal issues. Students should be educated so that they can talk not only with fellow experts, but often more challengingly an average American who has little or no knowledge of the business. The HASS classes attempt to address this issue, but they tend to fall short of the mark. The HASS system is primarily chaotic; the requirements are much more complex than they need to be and the system as a whole could use an overhaul. Furthermore, more emphasis should be placed on communicating ideas and consequently, and unfortunately, less placed on strictly art centered areas; another class on how to interpret opinions will probably serve graduates better than a class on introduction to music theory. The communication classes should not be as writing and journal centered as they are; MIT graduates are more immediately in need of verbal ability. The verbal communication aspect allows high caliber engineers to negotiate deals with customers, perform on an interview with a potential employer, explain

problems to management, and give a public speech on research without needing an interpreter for the audience.

MIT does do a fantastic job of letting its students talk about their personal lives. The S<sup>3</sup> and MedLink networks both allow students to come and talk about any personal, medical, financial, or academic issue that they might be facing. The students who are MedLinks are fantastically trained to interact with people in all states and have very well developed interpersonal communication skills. Being able to discuss things outside the world of science and technology is a necessary part of living, and MIT provides well for development of those skills, especially considering some of the levels of shyness that certain freshman enter with.

MIT definitely offers many career opportunities in the form of UROPs, employment, exchange programs, and lab work. These opportunities should be continuously offered to the student populous and they are for the most part. However, MIT should actively distribute information regarding these opportunities. Many seniors have decent insight into such matters, but freshman and sophomores tend to be quite inexperienced in such matters and are informed mostly by word of mouth from upperclassmen. While this can be effective, a more legitimate system could be installed to guarantee that a career advancing opportunity is readily available to those who aren't sure where to look. MIT is doing the right thing in establishing and funding these UROPs and labs, but communication regarding them could be better.

MIT does develop students' intellect, communication abilities, and career opportunities, but a few minor tweaks could be initiated. These effects culminate within the graduate and combine with the reputation of MIT to give the graduate a clear advantage over rival engineering graduates. The unique cultural aspect of MIT will shine through the rest of the graduate's life as will the superior thinking abilities. Because MIT teaches a broad technical base and then builds

upon it, rather than teaching to specific examples, MIT graduates will be much more versatile and therefore more valuable and productive in their field. MIT graduates have an advantage over schools like Cal Tech because of the overall emphasis of each institution. Both are science and technology centered, but MIT puts more emphasis on the technology part while Cal Tech prefers the science aspect. In today's climate, it is probably better to be educated with a technological orientation rather than a majority theory.

Personally, I want my MIT education to give me all the above. I want the prestige of an MIT degree, the innovative spirit and thought process, the ability to communicate my thought effectively, and the MIT UROP experience. I'd like to attain all these not as goals, but as means to an end. I need my education to take me to a well paying job whereby I could afford to put myself through graduate school, if at all possible. Since America appears to be on the verge of a nuclear renaissance, and the rest of the world undeniably is already there, I'd like my education to eventually place me on the leading edge of the new nuclear powered era. I'd like to directly contribute to society by producing clean, cheap, carbon-free electricity.

MIT will help me reach these places by giving me both the technical and logical skills necessary to land my dream job on the nuclear forefront. Utilizing MIT's exchange programs I could potentially travel outside the US and learn nuclear power from the masters in France or an East Asian nation. The biggest factors that MIT can contribute are it's intrinsic atmosphere and methodology. This innovative ability will place me head and shoulders above my competition and make me very valuable to my employer and to the energy consumers of tomorrow. MIT will give my classmates and I the knowledge and skills necessary to advance society and ourselves to new levels of finance, intellect, and efficiency.

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