

# A Brief Sermon on Education

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*The commentary I wrote following the academic disaster that occurred in my **Fall, 2002 EE351 class** has been moved here to make it easier to find for others who are referred to this site. I hope all students will read it and heed it. Education is something you earn, not receive. The following comments are not directed at any particular student but at students and society in general today.*

When things do not turn out as I want I can either ask what could someone else do or could have done (it can not be my fault) to make things as I want, or I can ask what could I do or could have done (it must be my fault)? Unfortunately, in our modern liberal society people have been conditioned to think the first way rather than the second. I implore everyone who is disappointed with their grade to ask themselves the second question and seek the truthful answer. Please do not waste your time trying to find some loophole or technicality that might make a difference for you. Spend that time mastering the fundamentals. Were the students who earned an A, B, or even C just lucky? Modern liberal thought would say yes but the real answer is in the following words of wisdom a wise man spoke - **The harder I work the luckier I become.**

There is no doubt in my mind that most of the students who did not earn high grades were very weak in the fundamentals of circuits. They probably barely made it out of circuits class thinking erroneously that they were finished with that and can continue having escaped the burden of learning the material. EE351 and EE431 are applied circuits classes. It is not possible to make it through these classes without being proficient in circuits. I think also that students entering circuits classes are weak in the required math and physics fundamentals which in turn makes it difficult to grasp circuits. The problem probably goes back even further. As I see things, there are two problems that combined make for the disappointment a number of students feel at this moment.

1. In order to create academic success stories (literally), politicians have caused a bias to pass students through fundamental courses from grade school and onwards. (Without a good foundation in the fundamentals all subsequent education is very difficult. I have looked back in my own life and every time I had trouble learning something it was because I was weak in some fundamentals). It all depends on what the definition of success is. If success is defined by the number of students entering college via some government program then all these government programs are successful - *by definition* - how convenient for the politicians and bureaucrats. If success were to be defined by the number of students who complete college then there may be a problem. But no matter - the obvious political solution is to force schools to ease graduation requirements (perhaps under the guise of higher academic standards) so that success can be maintained - this is the next frontier for politicians - it has already begun. Education and politics do not mix. I am concerned that there is a growing list of victims (perhaps some EE351 students? I hope not but I do not know) of the forced mixture we have today. Yes, I think politicians are worthless. Most are lawyers who are not competent to do anything but drink martinis in a plush country club. But they govern us.

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2. Students have too many side interests. It is obvious that some students put a lot of effort into this course. These students will be the leaders of tomorrow. The unusual number of low grades reflects a growing trend I have observed in recent years - students are just not interested in electrical engineering anymore. With the exception of a case or so of an individual having a personal burden, I think students are spending too much time on side interests such as entertainment/sports, social activities, and various social problems rather than what should be the main interest - learning. Although the grade may be the same, there is a huge difference between someone struggling to manage extra burdens in their life and someone who squanders the luxury of free time. My confidence and sympathy is with the former as they will eventually make it if they do not give up - just as those in the past made it. For Test 1 and Test 2 it was obvious that some students never worked a single homework problem or even worked along with the examples I worked in class. The material is remarkably simple. All it takes is a desire to really learn and some focused time to study. But without a good foundation in circuits this point is moot. *Without wings a plane can not take off no matter how hard it tries.*

Years ago, electrical engineering students were very interested in the subject and studied beyond what was required in order that they have the deepest understanding possible - they yearned for the American Dream - now they are living it. In the 1930's Mr. Hewlett and Mr. Packard both studied engineering intently and went on to start one of the greatest technology companies on the planet. What was the Hewlett-Packard Company is now known as Agilent Technologies and still lives up to the original high standards. Both men became billionaires in the process and left the bulk of their estates to educational programs. If you watch any sort of science or technology oriented programs on public television you should observe in the credits that funding often comes from either the William and Flora Hewlett Foundation or the David and Lucille Packard Foundation.

I remember many of my classmates had a deep personal interest and studied beyond what was required and even wrote software to solve particularly complex problems. Some of the notes for EE351 are adapted from extra work I did as a student 25 years ago when I was studying electronics at Auburn University.

The trend now is for a growing number of people to do the absolute minimum possible to just barely get by - i.e. coast - consume the wealth generated in the past. The vast wealth that has been built up in America over the last several hundred years is now being squandered to entertainment/sports (there is no difference between the two). I could be very pessimistic about the future but as long as people are allowed to achieve there will be those who do and the country as a whole will continue to prosper. My only fear is that someday the entertained will become the voting majority and vote to outlaw achievement in order to have more entertainment for themselves. That will be death of the American Dream. America will then be a place to escape from rather than escape to.

In conclusion I must say that students are powerless to address problem 1 but can circumvent the politicians by carefully addressing problem 2. You do have control of your future. You might have to work extra hard to get around the obstacles thrown at you.

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by politicians intent on managing your life for their benefit. Your mission in the world is to grow and prosper - not to be servants to politicians.

Having read this, think back to what your first thought was when you found out what your grade for this course and then re-read the first sentence of this sermon. If you thought the first way then you are doomed to perpetual failure until you learn to think the second way. If you thought the second way then you know what you need to do - by all means do it - master the fundamentals. Strive to understand these closing words of wisdom - *in any system in which you can not fail you also can not succeed.*