

7. Christian-Albrechts-Universität; Technische Fakultät in Kiel, Teaching and Miscellaneous

7.1 Teaching

7.1.1 Professor = Teaching

- To repeat myself:
"So in the fall of 1991 I was a full professor and supposed to lectures innocent kids just out of high school about the intricacies of Materials Science. As the founding Dean I was also supposed to produce an entire Faculty of Engineering (with 50 professors plus lots of normal people) from scratch (when I came, the faculty comprised 3 people including me). As a professor and chair holder I was also supposed to do research and this chapter deals with that only. The next chapter will cover teaching and some other happenings."
- This is the "next chapter" referred to above and much could be said about building up an "entire Faculty of Engineering from scratch". In the fullness of time, I might do just that and preserve for eternity some of the more interesting documents. Now (2023) I will only consider the "Hyperscripts of AMAT" as part of my teaching effort.
- In my negotiations with the University I demanded that we should start with a study course of electrical engineering (Elektrotechnik) right away. The university people thought that this was rather strange but complied. So three weeks after my family and I arrived in Kiel (living in a vacation home since the house we had bought still needed major work), I had to introduce 41 first year students to the basics of materials science with particular emphasis on electronic stuff.
- I have never before taught a lecture course. But then I was three weeks ahead of the students, what more does one need?
The less is said about my performance in the next two years or so, the better. However, all of our 41 beginners made it and got a diploma after 5-6-years. That is probably a German record. Usually at most half of the beginners make it to the end in electrical engineering.
- A year later, in 1992 we started the study course "Materials Science" (Materialwissenschaft), and 1994, when the "Hauptstudium" started we had to offer electives for the first time. I was rather busy then and thought that I could easily whip together some stuff about defects in crystals. That's what I did, and in doing so I realized that there was simply no good book around covering the topics I had in mind.
- So one produces a "script", typically a small booklet with the bare essentials. The professor jots down (by handwriting) some text and some poor secretary (or PhD student) converts that into a type written manuscript. However, we represented the Technical Faculty and thus needed to be at the forefront of technology and I decided that from now on everything would be written directly into "the computer".
I had a PC at my disposal, running at 33 MHz or so and using floppy discs (about 1 MB each) for mass storage. "Windows" and "Word 6.0" had just become usable for normal people, and not many people knew how to use these new-angled gadgets. My decision presented me with much frustration and curses were heard coming from my room, e.g. upon encountering the "blue screen of death", a rather frequent experience in those early days. But I stuck to my own guns mouse (then coming with a cable and a ball under the belly) and, eventually my co-workers, in particular Wolfgang Lippik, succeeded in teaching the Prof the essentials of how to work with a PC.
- But then the next big thing happened: The Internet appeared - around 1994 in a form usable for all. All the high-up people in politics, most of whom didn't have the faintest idea of what made a computer tick, now wanted the foggy bottom people to do something about it. After all, one needed to be in touch with all those new developments somehow. They were even willing to throw some money at it and with that in mind we decided to produce the "Defekts" Script (in German) as "Hyperscript", accessible in the Internet, and written in HTML,
- This produced a lot of work and hassle for Wolfgang Lippik but eventually he succeeded in teaching his professor the rudiments of HTML. Just as important was the contribution of Jürgen Carstensen, who devised an internal structure that allows to manage huge numbers of data files and data with ease and to employ various programs for important automatic functions like producing all kinds of lists.
- The German "Defekte" Hyperscript was eventually (in 99 / 00) converted to English and much enlarged. It served as the base for the lecture course for many years to come. For a script that covers a very special topic of Materials Science, it was and is rather popular. Even now (2023), more than 10 years after the lecture course was taught (by me) for the last time, it receives around 30.000 "clicks" per month.
- More Hyperscripts followed and now most students of Materials Science and Engineering or other branches of science and engineering world-wide are aware of the:

The Hyperscripts of AMAT

- **AMAT** is short for "Allgemeine Materialwissenschaft", the name of my chair and working group. That brings us right to the place where all this information can be found in detail: The "General Information" about the Hyperscripts of AMAT

General Information about the Hyperscripts of AMT

- ▀ Each Hyperscript would be a bug fat text book if printed. They also would be my most read publications by far. However, being fully "virtual" they don't count as publications,.
- ▀ In the next chapters I will give an updated and condensed version of this general information.