

Study course discussion Digital Engineering 20.11.2019

Start: 14:00

End: 16:23

Place: G29 - R301 Otto-von-Guericke Universität Magdeburg

Agenda:

Agenda & introductions

- Explanation: Study course discussion, what's that?

Official figures for "Digital Engineering"

Problem: Topics and supervision of master theses

Available courses of curriculum (capacities)

Topics from students

Agenda & introductions

The Study Coordinator Prof. Saake and the Dean of Study Prof. Günes welcome the participants. Everybody introduces themselves briefly. Thereafter the agenda is presented and the process of system accreditation explained especially the reason of the study course discussion.

Official figures for "Digital Engineering"

Statistics about Digital Engineering including the number of incoming and outgoing students. It is highlighted, that the relative number of graduates is low. We can assume that very few students finish their studies in 4 semesters and that it's optimisticly. Further we guess that the number of incoming students is above a hundred students this year, but it was guessed that around 20 students will be here.

//Discussion://

Problem: Topics and supervision of master theses

An already know problem is related to the master theses. Because of our high number of master students in Digital Engineering our faculty is having trouble to supervise as much, as it's needed. (answered and discussed below)

Available courses of curriculum (capacities)

Similar to the master thesis there is a lack of courses. A lot of courses are above their capacity and had to deny students who needed more courses in that semester. This is why the end of studies is being postponed more and more because the university cannot provide enough places.

To solve the problem of missing courses in the field of engineering we need to do an export and import contract with the other faculties. However, that is a harder process. Because of the expected small number of students in each course we did not do that before, but now it's essential.

There was a survey done about not being able to do the exercises done by the students.

There are a lot of courses where people drop out of and therefore the lessons are very full in the beginning and the space is tight, but giving more courses would also mean giving more courses for people dropping out (and there are not that much more capacities).

Topics from students

1. Making students aware of the compulsory courses as per examination regulations.

It seems some students missed their courses because they didn't know about it, so this should not happen again. University is not to blame because the compulsory courses are clearly stated in the documents and all students should read their study plan.

The possibility to skip courses is unclear.

Solution: Better communication, the regulation should be clarified. Students could request a skip (by letter and proof) and hand it to the Study Supervisor.

2. Pre-requisite for courses. (Pre-requisite course and planned course offered in the same semester)

Introduction to Deep-Learning and Machine Learning are in the same semester -> you need machine learning for deep-learning, but can't take one after another.

Changing the course structure might be really hard, because of dependencies.

For example: Data-mining 1+2 are in the same semester.

Idea: Working group should make dependency graphs for their courses

3. Improve the possibilities to learn German. -> you'd need to speak sufficient German to work in Germany (for most of the companies), therefore an easier way to learn German, maybe even a rewarding, might help.

The university is offering German language courses through the language center but they are overbooked. An engineering master gives 10 CP for German courses. There is a discussion about giving credits for it, or placing a German language course as part of Human Factors in study

regulations, languages learning as personal improvement (not our responsibility), can we make the language department offer more courses, prerequisites of a basic German language understanding (maybe with a regulation allowing to learn German during the first year at university)

4. Finding a thesis in a suitable field is very hard.
Fitting departments try to offer as much thesis as possible. Maybe you could open these for engineering professors. You could also open it to industry, however the industry might exploit the students and the scientific quality of the industry might lack, and you don't know the quality of the industrial supervisor.

Task: inform colleagues (also from other faculties) that a master thesis in other faculties is possible.

Maybe add on the website that each engineering professor is a possible supervisor for the thesis. There is a portal in development that shall collect possible thesis and information about them.

5. The visa extension process is unfair and unpredictable (data needed). This causes a lot of stress in students and they take more classes than they can handle, out of fear of not getting their visa extended until they finish their studies.

Can the faculty help, by supporting them better when filing for an extension or by raising political pressure in the ministry?

The faculty sadly can't help here, but maybe the university can.

6. Digital Engineering Projects event being cancelled. Effects students who are by the end of their studies. The idea behind the project is having a large interdisciplinary teamwork counting up to 12 CP. And there were different advisors. However, this year there were no offers for projects. Some projects are given in private.

From the sight of students, the event would still be helpful because you'd get to know how a project looks like.

The commitment of the students was too low in a few projects and therefore they were cancelled. Also, the dropout rate in projects is quite high and it's said that their commitments are lacking.

As a contrast a very structured project with 6 CP is working well because they have to take a lecture before, which builds the foundation, and then are guided through it.

A lot of students come from engineering background and therefore are not as good as computer science students and need to learn that. However, most projects have a high workload for computer scientists, but a low workload for engineers. We'd need at least 10 projects each semester,

WHAT WOULD HELP: 2x6CP (-> maybe even one project and one seminar [check if that's possible]), provide a platform to present and giving a stricter structure for the students. Forcing a registration (exam) at the start of the project might help to improve commitment.

*Event should be at a fixed date at each term and the awareness should be raised, change study plan, open for companies, new advertisement that shall help open the project to teaching chairs that don't work in the field of engineering, guidelines for DE-projects for the industry
=> The Study Coordinator will discuss the proposals and a solution will be worked out from these and possible further proposals.*

Notes

There are courses in engineering where their computer science part cannot be taken because of language barriers.

-> Approach the departments of interest if they could offer an English course introducing their topics (or holding a few of their foundation courses in English, which is possible if it isn't too soon in the bachelor)

Number of supervisors in subject-related.

Are there topics missing, or just a lack of them? No but a lot of students don't know about other topics beside where they took their courses.

Include a spot in the Masters night or brunch for introducing the faculty website (and website for Internationals) especially about list of departments in faculty.

Would students prefer a more structured program to force them on the plan. Maybe as a zero semester to build a foundation (basic courses). Having a few more mandatory courses might help, but it's good that it's as free as it is and it's liked like that. The free course program is a huge plus in choosing DE and shouldn't be changed

Providing profiles that guide through the study and are a recommendation on how to achieve the master would be a good idea.