

Teaching Portfolio

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Pedagogical view

Pedagogical view: Educational practice - Basis / values

My teaching philosophy in one sentence can be described as "Teach by example". As, I am teaching mechanical engineering courses, the purpose of learning is to apply the acquired knowledge in real-life mechanical engineering problems.

The most important lesson I learned, while studying engineering is that students should not only acquire the knowledge of basic concepts of engineering. Rather, they should be able to utilize the basic concepts of engineering on the real-life engineering problems. I believe that, this method of teach by example is a powerful tool of learning process and makes a learning process fun and make students remember the lecture.

The remembering of lecture is an important tool in the learning process. According to Kiewra, 2002 that "without reviewing, students remember less than 10% of lecture after 3 weeks" To overcome this problem, teach by example is a powerful method to make students remember the lecture which in turn help in improving the learning process. The teach by example creates both short term and long-term memory by:

- Attention: As lectures are based on real-life engineering problems.
- Interpretation: Allows discussion among students.
- Integration: New information is based on previous lectures or courses.

For example: I am teaching finite element method subject to master students. In this subject, course assignments are in the form of projects where group of students (generally 2-3 students) work on real-life engineering problems. The learned theory in the class is applied. This results into positive discussion and group work. The inter/intra group discussions result not only in integrating the information but also make learning process fun. When student leaves the school, he/she has developed tools to critically analyze the real-life problems.

Kiewra, Kenneth A. (2002). "How classroom teachers can help students learn and teach them how to learn." Theory into Practice, 41 (2), 71-80.

Teaching experience

Computer Aided Engineering
Basic Finite Element Methods
Optimization Engineering
Computer Aided Simulation
Advance Finite Element Methods
Machine dynamics and condition monitoring
Optimization

Formal pedagogical training

I have completed Lecture training program in 2013. The program corresponds in all to 8 ECTS points

Other activities related to teaching and teaching development