Teaching of mathematic for non- mathematical students

Daiga Zaime University of Liepaja, Institute of Mathematical Sciences and Information Technologies, 14 Lielā iela, LV3401, Liepaja, Latvia

Mathematics has incorporated in modern life in so many areas for which students are thinking that there the mathematic would never be needed. Not without reason the centralized exam results in mathematics are important in most of the possible specializations at the entrance examination in high schools. As example is a tourism management and an environmental management specialties of our university. Students who are joining this specialties have no senses that it is possible with mathematical techniques to determine the maximum profits, to minimize losses, to build mathematical models that reflect the complex variety of environmental and industrial processes. Students are introduced to quantitative methods for evaluating different processes.

Another example is students, who are closer to mathematics sciences- computer science bachelors students and our new physics bachelors program students. Some students are unpleasant surprised at the beginning by so many mathematical courses in these programs. The author teaches numerical methods for the students of computer sciences in the third year of studies. Consequently, it is possible to compare this course to stimulate learning and practical work for computer science and mathematics undergraduate programs. From year to year are interesting regularities observed, which differ the teaching of one and the same mathematic course by one and the same teacher for mathematics and non- mathematical students. Difference in student groups is not only by different mathematical and programming skills. A difference is in the motivation and in the psychological approach to challenges.

Interesting is also the students' ability or inability to develop links between mathematic and other courses, such as the tasks of solving physics examples. Static tasks, tasks and situations where a graphical description of the process is needed for analysis, so as many other cases whose can be solved by using of simple geometrical and algebraic correlations. Solving examples of the real processes requires the ability to evaluate the resulting answer with the real life, the result recording comprehensibility, after all-the precision, needed for the given problems.

References:
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