

Beginning university mathematics in Finland – with an emphasis of the developments in Helsinki

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So far universities in Finland have not experienced great difficulties in receiving beginning students in mathematics. But there are some important challenges many of which are related to a loss of students after the first year.

The level of mathematical skills of new students has declined in certain respects and therefore university level instruction has to change to meet the level of the new incomers.

There is great demand for new math teachers in the Finnish school system and to meet this, effort has to be put in recruiting students in teacher training.

Many beginning students actually want to get to study some other subject like medicine or law and they use a year of study in the faculty of science as a platform to prepare for entrance examinations in such fields.

These challenges have been taken seriously for example at the department of mathematics and statistics of the University of Helsinki. The results have been surprisingly good: we have been able to double the number of students passing certain important gates in their studies. These include the number of students majoring in mathematics who pass first year analysis and who pass those courses that lead to master level studies.

The main part of my talk describes what has actually been done in Helsinki.