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Reflections on introducing mature students to mathematics

Day 1 – Parallel I (12.00-12.30)

Over the years I have had great experience teaching both mathematics and statistics to “mature students’’. In particular, from 2000 - 2010, I was involved in the development and delivery of a “Foundation” Mathematics course aimed at people who were considering entering NUI, Galway, in the Republic of Ireland, as mature students to study for degrees in either science or engineering subjects. This course was a tremendous success, and is still running. In the region of 350 people who came through the course a have since graduated with degrees in Science or Engineering, a few students having completed PhD’s. Many of the reasons for the success of the course are surprising. These include such things as recruitment of students not being the prime objective, and the level of the course going far beyond the “basic maths’’ of many such courses – topics covered included basic to mid-level differentiation, integration, matrices, trigonometry and complex numbers. Over the years that I was involved in the course, the style of delivery evolved from being totally “chalk and talk’’ based at the start, to incorporating increased use of the virtual learning environment “blackboard’’, and towards the end of my involvement technology based techniques such as “clickers’’ and “Camtasia’’ videos, the latter being especially popular.

We will explore what made the course so successful, as well as analysing the course objectives and content. We will reflect upon issues pertinent to teaching “mature’’ students: they have a fear of mathematics, they tend to look at what they can’t do rather than what they can, they ask lots of questions, they expect you know everything, and consider how these traits may be used to advantage.