

LECTURES-NO-MORE: AN AID TO STUDENTS IN TRANSITION?

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ABSTRACT

A student's transition to university life is hampered by the quantum leap from small classes with individual help on-hand, to large impersonal lecture halls with minimal peer-peer or peer-instructor interaction. The School of Physics, at Monash University, is investing in purpose built facilities to enable a student-centred, collaborative learning approach to teaching large cohorts; with students being taught in "Studios" that resemble school classrooms. Every such effort should apparently have a good acronym; we have branded our new facilities, and approach 'PACE' (Physics and Astronomy Collaborative-learning Environment).

The first Australian 'Studio Physics' implementation was at Curtin University (Loss & Thornton, 1998; Yeo, 2002). This approach was based upon efforts at Rensselaer Polytechnic Institute (Wilson 1994). Rensselaer ran Studio Physics classes of up to 64 students; Curtin, 36. We will be catering for larger class sizes, as well as having less of a focus on technology, and a greater focus on aspects such as collaboration and the importance of the supporting spaces.

Our approach is modelled on SCALE-UP (Beichner, 2008); this brings a version of 'Studio Physics' to larger cohorts (over 100 students). It has been adopted by universities across the US and worldwide, and in disciplines other than Physics (Beichner, 2011); most notably, for Physics, TEAL at MIT (Dori, Hult, Breslow & Belcher, 2007).

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