

TACKLING THE SHORTAGE OF PHYSICS TEACHERS

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Young professionals with STEM skills are in high and increasing demand. Unfortunately, there is a prevalent gender disparity among graduates in engineering and physics. Girls are opting out of studying physics before the end of year 10: less than one quarter of the year 11 and 12 physics cohort in NSW is female. Physics trained high school teachers are needed to engage students in junior secondary science. However, there is currently a state, national and global shortage of such teachers, which is particularly acute in regional schools. Having a conceptual focus and contextualising material has been shown to have a positive impact on students' "physics identity" and consequently their interest in a STEM career. Teachers need a good understanding of physics themselves in order to design engaging classes for students. To address this shortage, University of New South Wales has introduced an online Graduate Certificate in Physics for Science Teachers, which is now in its third year. Feedback from graduates has been very positive: some have secured jobs in regional schools, many have commented on the impact it has had on their teaching of junior science, and some have shared resources they developed with colleagues.

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