

Low university entrance bar doesn't add up for maths students

JULIE HARE | THE AUSTRALIAN | MARCH 17, 2016 12:00AM



'It's like a having a disease and you don't know; it doesn't have any impact until it's too late.' Australian Mathematical Sciences Institute director Geoff Prince.

Universities are being held blamed for a national crisis in mathematical sciences because of lax entry standards into critically important subjects.

A 10-year strategy to be launched today by Education Minister Simon Birmingham says universities must make higher level Year 12 maths courses compulsory prerequisites for entry into a range of courses, including engineering, science and commerce.

The report from the Academy of Science says while 82 per cent of Year 12 students take a maths subject, enrolments in intermediate and advanced maths subjects have been in steep decline for years.

They say complex and opaque scaling of subjects by tertiary admissions centres also acts as a disincentive for students to take advanced subjects.

Currently just 14 per cent of universities make mid-level maths a prerequisite for a range of maths-intensive courses. Students are expected to make up the ground via bridging courses or in broad first-year subjects.

Australian Mathematical Sciences Institute director Geoff Prince said the study of maths, which would be critical to an innovative, data-driven future economy, was in a vicious spiral.

"We've been in a crisis for a very long time but it's like a having a disease and you don't know; it doesn't have any impact until it's too late," Professor Prince said.

"It's a chicken-and-egg situation. Too few students are doing intermediate and advanced maths at school often

because they don't have the teachers with the necessary discipline knowledge. Then universities accept students into important courses without the necessary prerequisites and many struggle and drop out.”

He said that 40 per cent of Year 7-10 maths classes nationally were run by teachers with no specific discipline knowledge.

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