THE UNIVERSITY OF SYDNEY

Mega Maths Day

For Year 9-10 Students

Mega Maths Day encourages Year 9-10 students to consider choosing their HSC mathematics subjects to support their future STEM study pathways and careers.

Friday 18 November 2022
or
Friday 25 November 2022
9am-2.30pm @ Camperdown campus, University of Sydney
$22 inc GST per student, teachers free

The Program*

Start	End	Activity
9am	9.20am	Arrival and registration
9.20am	10am	My Maths Career!
10.10am	10.20am	Morning tea break
10.20am	11.20am	Workshop A
11.30am	12.30pm	Workshop B
12.30pm	1.20pm	Lunch break
1.30pm	2.30pm	Workshop C

*Times may be shifted slightly closer to the date

Mega Maths Day is a full excursion day at the University of Sydney for Year 9-10 students.

Students will hear from our keynote STEM speaker about their own career path, and what study options are open to your students.

Your students will do three hands-on STEM workshops and lab experiments that showcase mathematical skills and techniques in different disciplines. You will have the chance to tell us your class preferences for which disciplines you'd like, and we will do our best to tailor your schedule accordingly.

Teachers must supervise their class throughout the program. This program is only bookable by high school teachers.

Contact
Dr Caitlin Fisher at science.alliance@sydney.edu.au or 0421 363 219.

Example Workshops

Mega Maths Day showcase mathematics in a variety of disciplines:

- Archaeology
- Agriculture
- Biology
- Chemistry
- Engineering
- Geosciences
- Physics
- Psychology
- and more...!

The 2022 workshop choices will be provided to registered schools closer to the date. Here are some examples of workshops we have run in the past to give you an idea.

Bee Gone!

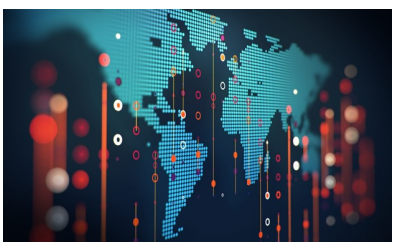
When bees move to a new nesting site, they communicate the quality and location of new sites through a waggle dance. In this game developed by University of Sydney researchers, we'll explore what mathematics can tell us about how the colony is able to come to a communal decision based only on individual bees' waggle dances.

Calculating Creepy Crawlies

Take a tour of organic matter and look at what is lurking in the leaf litter. Students will find out how agricultural and environmental scientists measure the biodiversity and abundance of species. We will consider how invertebrates influence the soil and apply some simple statistics to help us understand our dabbling in the detritus.

Paying for Predictions

With our changing climate, regions are having to deal with increased risks of droughts and floods. In this semi-corporative game, students will try to manage the flood risk in their region, relying on their knowledge of probability to make the best choices.



How to Estimate Anything

How many hairs are there on a human head? What is the probability of intelligent life elsewhere in the Universe? What is the GDP of a small nation? Remarkably, it is possible to answer these questions more-or-less accurately, with minimal information. Learn this valuable skill with the School of Physics, using a variety of examples from the sciences and humanities.