

Media release

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New self-study course provides A level Mathematics students with insights into data science

Maths education charity, MEI, has developed a new course to introduce A level Mathematics students and their teachers to data science with support from Arm, the world's leading semiconductor IP company.

Data science uses concepts and techniques from mathematics, statistics and computing to analyse big data. Demand for data scientists is growing rapidly, presenting exciting new career opportunities for young people. The application of data science across an increasingly wide range of contexts means it is also important for young people to understand how data is used and the impact it will have on their lives. The school curriculum will need to adapt to accommodate these trends.

The new course aims to raise awareness of data science among students and teachers and stimulate interest in further study. It will advance MEI's understanding of how to introduce and teach data science to 16-18-year-olds and inform MEI's future work on data science education, including the design of potential future curricula and qualifications.

The course is designed for students who have studied the first year of A level Mathematics. It introduces varied applications of data science, drawing on the work of leading data scientists. It provides a grounding in concepts and methods of data science, introduces students to Python and develops skills in using it to explore, analyse and present data. The activities include working with the same datasets students use for the statistics content of A level Mathematics.

The project was originally conceived as enrichment activity for teachers to deliver in the classroom with their students; however, when widespread schools and college closures came into effect, MEI adapted the course to be suitable for independent study by students who are working remotely. It is being currently being trialled by more than 100 schools and will be made freely available to all schools and colleges next term.

Charlie Stripp, MEI Chief Executive, said:

"Regardless of whether young people want to become data scientists, data science and skills in data analysis are becoming increasingly important to university study, applied research and the modern workplace. It is essential that we take this step to explore what this means for curriculum foundations at A level."

Professor Vicky Pope, Chair of MEI's Board, said:

"Having worked on climate change issues in the Met Office, I understand the importance of data skills. Big data has become crucial to a diverse range of scientific, commercial and industrial fields. This project is a key step in MEI's leadership of this area."

Professor Sir Adrian Smith, Institute Director and Chief Executive of The Alan Turing Institute and President Elect of the Royal Society from November 2020, said:

"The long-term implications of technological change and the rise of big data are profound. There are significant economic opportunities for the UK from data science, but to gain advantage the UK must embrace the idea of a data science education. This course will help us learn how to introduce young people to data science as part of the school curriculum."

Graham Budd, President and Chief Operating Officer, Arm, said:

"The convergence of AI, 5G and IoT is revolutionizing how we use data. Supported by the Arm School Program, this course is an important step in ensuring students have the opportunity to develop the skills and knowledge for a career in data science, which plays a central role in technological transformation across industry and society."

Notes to editors

[Mathematics in Education and Industry](#) (MEI) is an independent national charity committed to improving maths education. It aims to make a real difference to people's lives by improving the quality of maths education and learning. MEI supports the teaching, learning and assessment of maths by developing curriculum specifications and schemes of assessment; providing professional development for teachers; and publishing teaching and learning resources. MEI's work in the development and leadership of the DfE-funded [Advanced Mathematics Support Programme](#) (AMSP) and [National Centre for Excellence in the Teaching of Mathematics](#) (NCETM) enables MEI to have a sustainable national impact.

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