Media Release

New SMU Master's Programme Prepares Talent for AI-Driven Economic Roles

MDSE responds to growing need for professionals who can interpret, not just build, AI models

Singapore, 12 May 2026 – Singapore Management University (SMU) has launched the Master of Data Science in Economics (MDSE), Singapore's first and only master's programme that integrates data science and economics, to meet rising global demand for professionals who can apply artificial intelligence (AI) with domain expertise and analytical rigour.

As AI and machine learning (ML) become embedded in business and policy environments, the role of economists is evolving. Beyond building predictive models, there is increasing emphasis on interpreting outputs, assessing uncertainty, and understanding cause-and-effect relationships in complex, real-world data.

The MDSE is designed to address this shift. Through a curriculum that combines econometrics, AI and data science, students develop the ability to work with large-scale, multimodal datasets spanning numerical, textual and visual data, and to translate insights into decisions that carry economic and organisational impact.

"Globally, demand continues to grow for professionals with advanced skills in AI, machine learning and data science. At the same time, companies increasingly recognise the value of domain knowledge in economics," said **Daniel Preve, Associate Professor of Economics (Education) and Programme Director, MDSE.**

"While many data science programmes emphasise predictive modelling and deployment, the MDSE places additional focus on causal inference and predictive uncertainty. These capabilities are critical when decisions depend on understanding not just what is likely to happen, but why."

From predictive models to decision-ready insight

A distinguishing feature of the MDSE is its emphasis on applying data science, AI, ML and econometric methods to support informed, accountable decision-making. Students are equipped to move beyond technical execution by learning to:

- Apply econometric, AI and ML models to real-world economic and financial datasets
- Distinguish between predictive and explanatory approaches, and understand when each is appropriate
- Evaluate model limitations and uncertainty in real-world decision contexts
- Communicate insights clearly to business and policy stakeholders

Designed with employability in mind

The MDSE is structured to support both early-career entrants and mid-career professionals, with no prior programming experience required at entry. Foundational courses in probability and statistical learning build core competencies, while advanced modules develop applied expertise.

A strong focus on hands-on, industry-relevant training ensures graduates can demonstrate capability in tangible ways:

- Experience working with large-scale economic and financial data
- Proficiency in key programming tools and data systems
- Exposure to real-world problem statements through applied projects
- Development of shareable, interactive portfolios for prospective employers

Through elective courses, students engage with practitioners from Singapore's fintech and digital economy, gaining exposure to current industry applications and tools, as well as opportunities to earn relevant certifications.

Addressing a structural talent gap
As organisations adopt AI at scale, the differentiator is increasingly the ability to apply and interpret data meaningfully within context. This has created sustained demand for professionals who combine technical fluency with domain expertise.

"AI is changing how work is done, while making human judgement, interpretation and domain knowledge even more important," said Associate Professor Preve. "Graduates who can work confidently with data, understand its limitations, and apply it to real economic questions will be well-positioned across a wide range of roles."

The career pathways that are open to MDSE graduates span sectors including financial services, government, consulting and technology, in roles such as data scientist, economic analyst and policy specialist.

SMU's broader push in applied AI education
The launch of the MDSE builds on the University's track record in developing practice-oriented, AI-related postgraduate programmes that respond directly to evolving industry needs.

Recent initiatives include the region's first technology-focused Doctor of Business Administration (DBA), offered jointly with Fudan University and the Master of Science in Business AI. Together, these programmes reflect SMU's continued focus in equipping talent with the competencies and life skills to thrive in the evolving workplace.

SMU placed amongst the global top 40 for Business & Management Studies, and notched a strong 52nd spot for Economics & Econometrics, in the QS World University Rankings by Subject 2026.

In support of accessibility, the University offers a comprehensive range of scholarships and financial support schemes for eligible MDSE students.

Applications for the inaugural August 2026 MDSE intake are now open. Find out more here.

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About Singapore Management University

Established in 2000, Singapore Management University (SMU) is recognised for its disciplinary and multi-disciplinary research that addresses issues of global relevance, impacting business, government, and society. Its distinctive education, incorporating innovative experiential learning, aims to nurture global citizens, entrepreneurs and change agents. With more than 13,000 students, SMU offers a wide range of bachelors, masters and PhD degree programmes in the disciplinary areas associated with six of its eight schools - Accountancy, Business, Computing, Economics, Law and Social Sciences. Its seventh school, the SMU College of Integrative Studies, offers degree programmes in deep, integrative interdisciplinary education. The College of Graduate Research Studies, SMU's eighth school, enhances integration and interdisciplinarity across the various SMU postgraduate research programmes that will enable students to gain a holistic learning experience and well-grounded approach to their research. SMU also offers a growing number of executive development and continuing education programmes. Through its city campus, SMU focuses on making meaningful impact on Singapore and beyond through its partnerships with industry, policy makers and academic institutions. https://www.smu.edu.sg/