Course Code and Title	Units	Lab	SSG Subsidy#
Core Courses			
MSI5001 Introduction to AI: Concepts, Applications, and Evaluation *Introduces Artificial Intelligence (AI) as a transformative technology accessible to all disciplines. Students will explore different branches of AI and their applications, focusing on understanding on AI that learns from the data. The curriculum covers AI's foundational principles, its wide-ranging, and the ethical considerations inherent in its deployment. Practical components include hands-on implementation of basic AI prototypes and comprehensive analyses of their performances, potential benefits and risks. While no prerequisite knowledge of AI is required, familiarity with programming fundamentals is recommended for practical implementation.*	4	N	N
MSI5002 Management of Technological Innovation with AI *Explores the transformative role of artificial intelligence in technological innovation. This practical, experience-based course delves into AI-driven advancements across product design, market strategies, brand management, financial modeling, and intellectual property. Ethical considerations, such as biases and privacy concerns, are addressed alongside the development of critical skills in data literacy, strategic thinking, and interdisciplinary collaboration. Through hands-on learning and everyday applications, students are prepared for future career paths in corporate innovation and entrepreneurial ventures. The course equips students with the knowledge and expertise to lead AI-enhanced projects, drive strategic initiatives, and foster innovation in dynamic business environments.*	4	N	N
MSI5003 Innovation & Entrepreneurship in AI *Learn to leverage AI for venture creation and startup success. This course covers AI tools in design thinking, idea generation, prototyping, simulation, and hypothesis validation. Discover the synergy of AI, GenAI, and entrepreneurship, applying design thinking and lean business methods to develop innovative business cases. Engage in hands-on projects, gain insights from industry experts, and collaborate on real-world problems. Ideal for aspiring entrepreneurs and corporate innovators, this course equips you with an entrepreneurial mindset and the skills to launch AI-driven ventures.*	4	N	N
MSI5004 AI Governance and Ethics *The development and deployment of artificial intelligence ("AI") systems can have ethical implications. Developers and deployers of AI systems are therefore expected to exercise good governance over their AI systems, to ensure that ethical norms are not violated. This course will cover basic concepts of AI governance, and address key ethical issues in relation to AI.*	4	N	N
MSI5102 Essentials of Machine Learning *This course offers an accessible introduction to machine learning, tailored for individuals from diverse backgrounds. As part of the 'AI and Innovation' program, it equips students with the fundamental knowledge and skills needed to effectively deploy AI-based solutions for tasks in industry, business, healthcare and daily life. Emphasizing foundational concepts and intuitive understanding, the course ensures that even those with limited quantitative skills can grasp the core ideas. Through hands-on exercises and real-world case studies, students will become adept at utilizing machine learning tools, empowering them to contribute effectively to AI-driven initiatives in their respective fields.*	4	N	N

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Specialised Electives			
LL5532X Law, Algorithms and Artificial Intelligence *This course explores the intersection of law and AI. The course will critically introduce students to practical real-world applications of statistics, machine learning, natural language processing and AI with a legal perspective in mind, focusing on the detection of biases inherent in the use of AI tools. Throughout the course, students will engage in critical discussions, case studies, and work on a semester-long group project to understand the relationship between law, algorithms, data and AI.*	4	N	N
LL5533X Data Privacy Compliance *This course aims to introduce students to the fundamentals of compliance with data privacy law. The focus will be on compliance with the Singapore Personal Data Protection Act 2012, although the lessons learnt in this course will likely be applicable to compliance with other data protection regimes. Students should emerge from this course with a good familiarity with the rules and concepts of data protection law, and an understanding of how to comply with the rules. This course is designed for students who do not have a background in law.*	4	N	N
MT5021 Creativity and Problem-Solving Skills *Engineers often have to deal with problems that go beyond their technical domains. How can one solve problems that we are not trained in? What are the guiding principles for good problem-solving? This course introduces students to the craft and science of problem-solving and creativity. We will examine the similarities and differences between established problem-solving methodologies such as design thinking, business process re-engineering (BPR) and TQM's DMAIC. Students will learn the importance of comprehensiveness, creativity, and convergence in problem-solving. By learning the language and terminologies common in problem-solving, students will learn the principles and skills of creative problem-solving.*	4	N	N
General Electives For course information, please visit *NUS Mods* and do a course code/title search.			
ACE5411 Cultural Analytics and Informatics	4	N	N
DSA5204 Deep Learning and Applications	4	N	Y
ECA5103 Quantitative and Computing Methods	4	N	N
ECA5304 Machine Learning and Economic Forecasting	4	N	N
ECA5305 R Programming for Economists	4	N	N
ECA5307 Python Programming for Economists	4	N	N
ECA5372 Big Data Analytics and Technologies	4	N	N
ETP5341 New Venture Finance	4	N	N
ETP5381 Carbon Market & Sustainable Financing	4	N	N
IT5001 Software Development Fundamentals	4	N	Y
IT5005 Artificial Intelligence	4	N	Y
MT5010 Technology Forecasting, Intelligence & Foresighting	4	N	N
MSI5005 - Selected Topics in AI and Innovation	4	N	N
MSI5006 - Capstone Project for AI and Innovation	4	N	N

Course Code and Title	Units	Lab	SSG Subsidy#
NMC5364 Digital Journalism, Law, and Society	4	N	N
PC5251 Applied Machine Learning and Data Science	4	N	N

 # SSG funding for courses is limited in duration and subject to availability

Note: Course offerings are subject to changes every Semester.