

Acad Unit	Course Code and Title	Units	Lab	SSG Subsidy <sup>#</sup>
<b>Core Courses</b>				
BIZ	IND5001 Introduction to Industry 4.0 and Applications	4	N	N
CDE	IND5002 Digital-Physical Integration in Industry 4.0	4	N	N
FoS	IND5003 Data Analytics for Sense-making	4	N	N
SoC	IND5004 Digital Infrastructure and Transformation	4	N	N
SCALE	IND5005A Professional Career Development	0.5	N	N
	IND5005B Industry Consulting and Application Project	3.5	N	N
<b>Elective Courses</b>				
BIZ	<b>Graduate Certificate in Digital Supply Chain</b>	<b>12</b>		
	IND5021/DOS5021 Managing the Digital Supply Chain	4	N	Y
	IND5022/DOS5022 Data Analytics for Smart Manufacturing	4	N	Y
	DOS5101A Managing the Financial Supply Chain	2	N	Y
	IND5024/DOS5024 Strategic Procurement in a Digital World	2	N	Y
	DOS5025 Global Industry Insights for Smart Industries	2	N	Y
	<b>Graduate Certificate in Financial Management and Analytics</b>	<b>12</b>		
	DBA5105 Fintech, Enabling Technologies, and Analytics	4	N	N
	DBA5107 Data Analytics in Banking	4	N	N
	DOS5101A Managing the Financial Supply Chain	2	N	Y
	IND5024/DOS5024 Strategic Procurement in a Digital World	2	N	Y
SoC	<b>Graduate Certificate in Digital Business (Choose 3 Courses)</b>	<b>12</b>		
	IS5007 Strategising for Global IT-enabled Business Success	4	N	Y
	IS5116 Digital Entrepreneurship	4	N	Y
	IS5117 Digital Government	4	N	Y
	IS5151 Information System Security Policy and Management	4	N	Y
	<b>Graduate Certificate in Computing Foundations II</b>	<b>12</b>		
	<b>(Choose 1 Course)</b>			
	IT5002 Computer Systems and Applications	4	Y	Y
	IT5003 Data Structures and Algorithms	4	Y	Y
	IT5004 Enterprise Systems Architecture Fundamentals	4	Y	Y
	<b>(Choose 2 Courses)</b>			
	IT5005 Artificial Intelligence	4	Y	Y
	IT5006 Fundamentals of Data Analytics	4	Y	Y
	IT5007 Software Engineering on Application Architecture*	4	Y	N
FoS	<b>Graduate Certificate in Quality Assurance and Yield Optimization<sup>+</sup></b>	<b>8</b>		
	<b>(Choose 2 Courses)</b>			
	ST5203 Design of Experiments for Product Design and Process Improvements	4	N	N
	ST5212 Survival Analysis	4	N	Y
	ST5210 Multivariate Data Analysis	4	N	Y
	<b>Graduate Certificate in Statistics for Data Science<sup>+</sup></b>	<b>8</b>		
	<b>(Choose 2 Courses)</b>			
	ST5227 Applied Statistical Learning	4	N	Y
	ST5225 Statistical Analysis of Networks	4	N	Y
	ST5226 Spatial Statistics	4	N	Y
	<b>Other Electives</b>			
	DSA5202 Advanced Topics in Machine Learning	4	N	Y
	DSA5203 Visual Data Processing and Interpretation	4	N	Y
DSA5102 Foundations of Machine Learning	4	N	Y	

Acad Unit	Course Code and Title	Units	Lab	SSG Subsidy <sup>#</sup>
ISS	<b>ISY5002 Graduate Certificate in Pattern Recognition Systems</b> <ul style="list-style-type: none"> <li>Problem Solving Using Pattern Recognition</li> <li>Pattern Recognition and Machine Learning Systems</li> <li>Intelligent Sensing and Sense Making</li> <li>Practice Project</li> </ul>	13	Y	Refer to ISS website
	<b>ISY5004 Graduate Certificate in Intelligent Sensing Systems</b> <ul style="list-style-type: none"> <li>Vision Systems Engineering</li> <li>Spatial Reasoning from Sensor Data</li> <li>Real time audio-visual sensing and sense making</li> <li>Practice Project</li> </ul>	10	Y	Refer to ISS website
	<b>ISY5003 Graduate Certificate in Intelligent Robotic Systems<sup>^</sup></b> <ul style="list-style-type: none"> <li>Autonomous Robots and Vehicles</li> <li>Human-Robot System Engineering</li> <li>Robotic Systems</li> <li>Practice Course</li> </ul>	13	Y	Refer to ISS website
	<b>ISY5005 Graduate Certificate in Intelligent Software Agents<sup>^+</sup></b> <ul style="list-style-type: none"> <li>Intelligent Process Automation</li> <li>RPA and IPA - Strategy and Management</li> <li>Self-Learning Systems</li> <li>Software Robots - Best Practices</li> <li>Practice Course</li> </ul>	10	Y	Refer to ISS website
CDE	<b>Graduate Certificate in Internet of Things (Choose 5 Courses)</b>	10		
	EE5020 Data Science for Internet of Things	2	Y	Y
	EE5021 Cloud Based Services for Internet of Things	2	Y	Y
	EE5022 Cyber Security for Internet of Things	2	Y	Y
	EE5023 Wireless Networks	2	Y	Y
	EE5024 Sensor Networks	2	Y	Y
	EE5025 Intellectual Property: Innovations in IoT	2	Y	Y
	EE5026 Machine Learning for Data Analytics	2	Y	Y
	EE5027 Statistical Pattern Recognition	2	Y	Y
	EE5060 Sensors and Instrumentation for Automation	2	Y	Y
	EE5061 Industrial Control and Programming	2	Y	Y
	<b>Graduate Certificate in Robotics and Automation (Choose 3 to 5 Courses)</b>	10		
	EE5060 Sensors and Instrumentation for Automation	2	Y	Y
	EE5061 Industrial Control and Programming	2	Y	Y
	EE5062 Autonomous Systems	2	Y	N
	EE5064 Dynamics and Control of Robotic Manipulators	2	Y	N
	ME5402 Advanced Robotics	4	Y	N
ME5405 Machine Vision	4	Y	N	

\*Co-requisite is IT5003 Data Structures and Algorithms

<sup>^</sup>Pre-requisite is ISY5002 Graduate Certificate in Pattern Recognition Systems

<sup>#</sup> SSG funding for courses is limited in duration and subject to availability

<sup>+</sup>Graduate Certificate offered only to cohorts AY2023/24 and before.

**Note: Course offerings are subject to changes every Semester. The University reserves the right to make changes to the Graduate Certificate offerings as necessary without prior notice.**