

## Master of Science in Industrial and Systems Engineering

Curriculum requirement for AY2021/2022 intake and prior

Students have to complete all 16MCs from the core list and 24MCs from the electives. All modules are 4MCs unless otherwise indicated.

Core modules (16 MCs)	<ol style="list-style-type: none"> <li>1) IE5001 Operations Planning and Control I</li> <li>2) IE5002 Applied Engineering Statistics</li> <li>3) IE5003 Cost Analysis And Engineering Economy</li> <li>4) IE5004 Engineering Probability and Simulation</li> </ol>
Elective modules (24 MCs)	<p>Group A – Specialisation in <b>Project Management</b>  <i>Students need to take 1 PM Core module and 4 elective modules related to Project Management Specialisation and attain overall CAP of 3.5</i></p> <ol style="list-style-type: none"> <li>1) IE5208 Systems Approach to Project Management (core)</li> <li>2) IE5121 Quality Planning and Management</li> <li>3) IE5202 Applied Forecasting Methods</li> <li>4) IE5121 New Product Management</li> <li>5) IE5301 Human Factors In Engineering and Design</li> <li>6) IE5404 Large Scale Systems Engineering</li> </ol> <p>Group B – Specialisation in <b>Operations Research</b>  <i>Students need to take 5 elective modules related to Operations Research Specialisation and attain overall CAP of 3.5</i></p> <ol style="list-style-type: none"> <li>1) IE5105 Modelling for Supply Chain Systems</li> <li>2) IE5107 Material Flow Systems</li> <li>3) IE5108 Facility Layout and Location</li> <li>4) IE5123 Reliability Engineering</li> <li>5) IE5203 Decision Analysis</li> <li>6) IE5504 Systems Modelling and Advanced Simulation</li> <li>7) IE5600 Applied Programming for Industrial Systems</li> <li>8) IE5202 Applied Forecasting Methods</li> </ol> <p>Group C – Specialisation in <b>Systems Engineering</b>  <i>Student need to take 5 elective modules related to Systems Engineering Specialisation and attain overall CAP of 3.5</i></p> <ol style="list-style-type: none"> <li>1) IE5205 Healthcare System and Analytics</li> <li>2) IE5206 Energy and Sustainability</li> <li>3) IE5208 Systems Approach to Project Management</li> <li>4) IE5121 Quality Planning and Management</li> <li>5) IE5404 Large Scale Systems Engineering</li> <li>6) IE5504 Systems Modelling and Advanced Simulation</li> </ol> <p>Group D – other elective modules</p> <ol style="list-style-type: none"> <li>1) IE5213 Service Innovation and Management</li> <li>2) IE5231 Statistical Methods for Process Design and Control</li> <li>3) IE5881 Selected Topics In Industrial Engineering</li> </ol>
	<p>Subject to the approval of the MSc (ISE) Programme Manager, students may be allowed to take up to 8 MC outside the prescribed curriculum, in lieu of the required modules to complete the MSc (ISE) degree.</p>

Students admitted prior to 2022 may refer to their fees at <https://www.nus.edu.sg/registrar/administrative-policies-procedures/graduate/graduate-fees>, under Tuition Fee for MOE Government Subsidised Programmes.

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