ENGINEERING SCIENCE PROGRAMME – SECOND MAJOR

FOR COHORT AY2021/2022 ONWARDS	MC
Common Curriculum	**60**
Singapore Studies	4
Cultures and Connections	4
Communities and Engagement	4
ES2531 Critical Thinking and Writing	4
CS1010E Programming Methodology	4
GEA1000 Quantitative Reasoning with Data	4
DTK1234 Design Thinking	4
EG1311 Design and Make	4
IE2141 Systems Thinking and Dynamics	4
EE2211 Introduction to Machine Learning	4
EG2501 Liveable Cities	4
Creating Narratives	4
PF1101 Fundamentals of Project Management	4
ESP4901 Research Project	8
Major Requirements	**60**
MA1511 Engineering Calculus	2
MA1512 Differential Equations for Engineering	2
MA1508E Linear Algebra for Engineering	4
EG2401A Engineering Professionalism	2
EG3611A Industrial Attachment	10
ESP1111 Engineering Principles in Action	4
ESP2111 Sensor System Electronics	4
Choose ONE from the following list: [Please identify 1] • PC2020 Electromagnetics for Electrical Engineers • ME2121 Engineering Thermodynamics & Heat Transfer • EE2023 Signals and Systems	4
PC2130B Applied Quantum Physics	4
PC2133 Applied Solid State Physics	4
ESP2106 Principles of Continua	4
ESP2107 Numerical Methods and Statistics	4
ESP2110 Design Project	4
ESP3903 Major Design Project 2	4
CM3296 Molecular Modelling: Theory and Practice	4
Second Major in Statistics	**40**
ST1131 Introduction to Statistics and Statistical Computing	4
MA1508E Linear Algebra for Engineering (Double-counted)	4*
MA1511 Engineering Calculus (Double-counted)	2*
MA1512 Differential Equations for Engineering (Double-counted)	2*
MA2104 Multivariable Calculus	4
ST2334 Probability and Statistics	4
ST2132 Mathematical Statistics	4
ST2137 Statistical Computing and Programming	4
ST3131 Regression Analysis	4
ST3232 Design & Analysis of Experiments	4
ST4231 Computer Intensive Statistical Methods	4
Other Unrestricted Electives	**8**
ESP3201 Machine Learning in Robotics and Engineering	4
IE3101 Statistics for Engineering Applications	4
TOTAL	**160**