

**INDUSTRIAL & SYSTEMS ENGINEERING - Single Honours**

Single Honours Degree Requirements	MCs	Remarks	Classification
<b>(A) University Level Requirements</b>			
General education modules:			
GER1000 Quantitative Reasoning	4	Only 1 set needs to be completed for both BEng and BBA degrees. May be replaced by selected USP, RVRC or UTCP modules.	CA
GEQ1000 Asking Questions	4		CA
GET	4		CA
GEH	4		CA
GES	4		CA
<b>Sub-total for University Level Requirements</b>	<b>20</b>		
<b>(B) Engineering Programme Requirements</b>			
<b>Faculty requirements:</b>			
EG2401A Engineering Professionalism	2		C1
<b>Foundation requirements:</b>			
IE1111R Industrial & Systems Engrg Principles & Practice I	4		C1
IE2111 Industrial & Systems Engrg Principles & Practice II	4		C1
MA1505 Mathematics I	4		C1
MA1508E Linear Algebra for Engineers	4		C1
CS1010E Programming Methodology	4		C1
EE2211 Introduction to Machine Learning	4		C1
EG1311 Design and Make	4		C1
IE2141 Systems Thinking and Dynamics	4		C1
MLE1010 Materials Engineering Principles & Practices	4		C1
ST2334 Probability and Statistics	4		C1
PC1431 Physics IE or PC1432 Physics IIE	4		C1
<b>ISE core modules:</b>			
IE2100 Probability Models with Applications	4		C1
IE2110 Operations Research I	4	Replace with additional ISE technical elective if IE2110 is counted as Common Module	C1
IE3101 Statistics for Engineering Applications	4		C1
IE3110R Simulation	4		C1
<b>ISE project and internship modules:</b>			
IE3100R Systems Design Project	8		C1
IE4100R B.Eng. Dissertation or IE4102 Independent Study Module + ISE technical elective	8		C1
EG3611A Industrial Attachment or EG3612 Vacation Internship Programme	-	Exempted for DDP students	-
<b>ISE pathway requirements and electives:</b>			
IE4211 Modelling and Analytics or Level 5000 module	4		C1
IE4240 Project Management or Level 5000 module	4	Replace with additional ISE technical elective if IE4240 is counted as Common Module	C1
<b>Free electives</b>	<b>2</b>		<b>C1</b>
<b>Sub-total for Engineering Programme Requirements</b>	<b>88</b>		
<b>(C) Business Programme Requirements</b>			
<b>Business preparatory modules:</b>			
BPM1701 Calculus and Statistics	0	These modules must be completed within the first semester after matriculation or first semester of commencing the DDP for mid-stream DDP students.	-
BPM1702 Microsoft Excel Skills for Business	0		-
BPM1705 Understanding How Business Works	0		-
STR1000 Career Creation Starter Workshops	0		-
STR2000 Career Creation Starter Clinics	0		-
Global Immersion and Study	-	May be fulfilled through student exchange, overseas internship, case competition, or study trip.	-
<b>BBA core modules:</b>			
ACC1701 Accounting for Decision Makers	4		C2
BSP1702 Legal Environment of Business	4		C2
BSP1703 Managerial Economics	4		C2
BSP2701 Global Economy	2		C2
BSP3701 Strategic Management	4		C2
DAO1704 Decision Analytics Using Spreadsheets	4		C2
DAO2702 Programming for Business Analytics	4		C2
DAO2703 Operations and Technology Management	4		C2
FIN2704 Finance	4		C2
MKT1705 Principles of Marketing	4		C2
MNO1706 Organisational Behaviour	4		C2
MNO2705 Leadership and Decision Making under Uncertainty	4		C2
<b>BBA electives / specialisation modules:</b>			
BBA elective 1	4	It is not compulsory for DDP students to do a specialisation, but those who wish take up a specialisation will need to complete 24 MCs of specialisation modules.	C2
BBA elective 2	4		C2
<b>Sub-total for Business Programme Requirements</b>	<b>54</b>		
<b>(D) Common Modules</b>			
ES2531 Critical Thinking and Writing	4	Replaces ES2002 Business Communication for Leaders (BBA). Can also be replaced by UWC2101% (for USP students), ES1601 (for RVRC students), or UTW2001% (for UTCP students).	CA
BEng module 1	4	Select from list of Common Modules.	CA
BEng module 2	4		CA
BBA module 1	4		CA
BBA module 1	4		CA
<b>Sub-total for Common Modules</b>	<b>20</b>		
<b>TOTAL (minimum)</b>	<b>182</b>		