



EPD CURRICULUM MATRIX 2020-2023 [ new calendar ]

	Term 4				Term 5				Term 6						Term 7				Term 8			
CE COMPUTER ENGINEERING	<p><b>Important:</b> Required to enrol in all Pillar Core subjects Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term</p>				<p><b>Important:</b> Required to enrol in all Pillar Core subjects Required to enrol in 1 Restricted Pillar Elective Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term</p>				<p><b>Important:</b> Required to enrol in Restricted Track Elective + 2 Pillar Electives Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term Optional: To replace Pillar Electives with Cross-Pillar Electives (Pink Box) Optional: To replace up to 3 pillar/advanced pillar electives with Unrestricted Electives (including Electives from other Pillars) that run across Term 6, 7 &amp; 8</p>						<p><b>Important:</b> Required to enrol in 2 Advanced Pillar Electives Required to enrol in 1 Capstone Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term Optional: To replace Pillar Electives with Cross-Pillar Electives (Pink Box) Optional: To replace up to 3 pillar/advanced pillar electives with Unrestricted Electives (including Electives from other Pillars) that run across Term 6, 7 &amp; 8</p>				<p><b>Important:</b> Required to enrol in 2 Advanced Pillar Electives Required to enrol in 1 Capstone Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term Optional: To replace Pillar Electives with Cross-Pillar Electives (Pink Box) Optional: To replace up to 3 pillar/advanced pillar electives with Unrestricted Electives (including Electives from other Pillars) that run across Term 6, 7 &amp; 8</p>			
	30.001 Structure & Materials Pre Req: -10.013, -10.015, -10.016	30.002 Circuits & Electronics Pre Req: -10.013, -10.017, -10.018	30.007 Engineering Design Innovation Pre Req: -10.013, -10.014	30.101 Systems & Control Pre Req: -10.018	HASS	30.110 Digital Systems Lab Pre Req: -10.013, -10.020, -30.002	30.106 Micro-electronics Circuits & Devices Pre Req: -10.014, -10.015, -10.016, -10.017, -10.018, -10.019, -10.020	30.107 Power Electronics Pre Req: -10.013, -10.015, -10.016, -10.017, -10.018, -10.019, -10.020	30.111 Entrepreneurship Pre Req: -NIL	30.203 Topics in Biomedical & Healthcare Engineering Pre Req: -10.016, -10.019, -30.001	30.316 Digital Biomimetics: Sustainable & Manufacturing Pre Req: -30.001, -30.007	30.123 Healthcare Product Design Pre Req: -10.007, -10.001, -30.002, -30.007, -30.101	30.202 Design of Intelligent Digital Integrated Circuits & Systems Pre Req: -30.002	CSO 50.006 User Interface Design and Implementation 50.020 Network Security 50.025 Computer Vision SMT 01.119 Nanoelectronics and Technology Note: Please refer to CSO's and SMT's websites for the latest course offerings and subject pre-requisites	CAPSTONE	01.105 Design and Manufacturing (EPO) 01.101 Technologies for Sustainable Global Health (SMT) XX.XXX Unrestricted Electives Note: These courses count as Unrestricted Electives (maximum 3 per track) Please refer to CSO and ESD websites for latest course offerings and pre-requisites	30.201 Wireless Communications & Internet of Things Pre Req: -NIL	30.115 Digital Signal Processing Pre Req: -10.007	CSO 50.021 Graphics and Visualisation 50.021 Artificial Intelligence Note: Please refer to CSO's website for the latest course offerings and subject pre-requisites	CAPSTONE	01.106 Engineering Management (EPO) 01.102 Energy Systems and Management (ESD) XX.XXX Unrestricted Electives Note: These courses count as Unrestricted Electives (maximum 3 per track) Please refer to CSO and ESD websites for latest course offerings and pre-requisites	HASS
30.100 Computational & Data-Driven Engineering Pre Req: -10.014 or -10.020, -10.017, -10.018, -10.022	HASS	30.102 Electro-magnetics & Apps Pre Req: -10.013, -10.015, -10.018, -10.017			CSO 50.001 Information Systems & Programming 50.002 Computational Structures 50.004 Algorithms 50.007 Machine Learning ESD 40.319 Statistical and Machine Learning Note: Please refer to CSO and ESD websites for latest course offerings and pre-requisites	XX.XXX Unrestricted Electives Note: This course counts as Unrestricted Elective (maximum 3 per track) Please refer to CSO and ESD websites for latest course offerings and pre-requisites	HASS				HASS											
HED HEALTHCARE ENGINEERING DESIGN	<p><b>Important:</b> Required to enrol in all Pillar Core subjects Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term</p>				<p><b>Important:</b> Required to enrol in all Pillar Core subjects Required to enrol in 1 Restricted Pillar Elective Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term</p>				<p><b>Important:</b> Required to enrol in Restricted Track Elective + 2 Pillar Electives Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term Optional: To replace Pillar Electives with Cross-Pillar Electives (Pink Box) Optional: To replace up to 3 pillar/advanced pillar electives with Unrestricted Electives (including Electives from other Pillars) that run across Term 6, 7 &amp; 8</p>						<p><b>Important:</b> Required to enrol in Restricted Track Elective + 1 Advanced Pillar Elective Required to enrol in 1 Capstone Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term Optional: To replace Pillar Electives with Cross-Pillar Electives (Pink Box) Optional: To replace up to 3 pillar/advanced pillar electives with Unrestricted Electives (including Electives from other Pillars) that run across Term 6, 7 &amp; 8</p>				<p><b>Important:</b> Required to enrol in 2 Advanced Pillar Electives Required to enrol in 1 Capstone Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term Optional: To replace Pillar Electives with Cross-Pillar Electives (Pink Box) Optional: To replace up to 3 pillar/advanced pillar electives with Unrestricted Electives (including Electives from other Pillars) that run across Term 6, 7 &amp; 8</p>			
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30.100 Computational & Data-Driven Engineering Pre Req: -10.014 or -10.020, -10.017, -10.018, -10.022	HASS	30.102 Electro-magnetics & Apps Pre Req: -10.013, -10.015, -10.018, -10.017	30.103 Fluid Mechanics Pre Req: -10.015, -10.018, -10.017		30.108 Introduction to Material Science Pre Req: -10.016, -10.019, -30.001	30.109 Thermal Systems for Power & Environment Pre Req: -10.023	30.110 Digital Systems Lab Pre Req: -10.014, -10.019, -30.002	30.111 Entrepreneurship Pre Req: -NIL	30.316 Digital Biomimetics: Sustainable & Manufacturing Pre Req: -30.001, -30.007	01.112 Maching Learning (CSO) XX.XXX Unrestricted Electives Note: This course counts as Unrestricted Elective (maximum 3 per track) Please refer to CSO and ESD websites for latest course offerings and pre-requisites	01.105 Design and Manufacturing (EPO) 01.101 Technologies for Sustainable Global Health (SMT) XX.XXX Unrestricted Electives Note: These courses count as Unrestricted Electives (maximum 3 per track) Please refer to CSO and ESD websites for latest course offerings and pre-requisites	HASS				HASS	01.106 Engineering Management (EPO) 01.102 Energy Systems and Management (ESD) XX.XXX Unrestricted Electives Note: These courses count as Unrestricted Electives (maximum 3 per track) Please refer to CSO and ESD websites for latest course offerings and pre-requisites					
BI4 BEYOND INDUSTRY 4.0	<p><b>Important:</b> Required to enrol in all Pillar Core subjects Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term</p>				<p><b>Important:</b> Required to enrol in all Pillar Core subjects Required to enrol in 1 Restricted Pillar Elective Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term</p>				<p><b>Important:</b> Required to enrol in 3 Pillar Electives Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term Optional: To replace Pillar Electives with Cross-Pillar Electives (Pink Box) Optional: To replace up to 3 pillar/advanced pillar electives with Unrestricted Electives (including Electives from other Pillars) that run across Term 6, 7 &amp; 8</p>						<p><b>Important:</b> Required to enrol in Restricted Track Elective + 1 Advanced Pillar Elective Required to enrol in 1 Capstone Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term Optional: To replace Pillar Electives with Cross-Pillar Electives (Pink Box) Optional: To replace up to 3 pillar/advanced pillar electives with Unrestricted Electives (including Electives from other Pillars) that run across Term 6, 7 &amp; 8</p>				<p><b>Important:</b> Required to enrol in 2 Electives (Note: Must enrol in at least 1 Advanced Pillar Elective (A)) Examples: 2 Advanced Pillar Elective (A) &amp; 1 Advanced Pillar Elective (B)/Cross Pillar Elective (B) or 2 Advanced Pillar Elective (A) Required to enrol in 1 HASS subject Required to enrol minimum of 4 subjects in this term Optional: To replace up to 3 pillar/advanced pillar electives with Unrestricted Electives (including Electives from other Pillars) that run across Term 6, 7 &amp; 8</p>			
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**NOTE:** Students from AY2017 onwards can take up to 3 Unrestricted Electives (including Technical Electives) and this can be used to fulfil a minor. Courses may change without notice. Please check with respective Pillar/Cluster websites for latest offering. Enrolment into courses are subject to fulfilment of pre-requisites and availability.