FACULTY OF ENGINEERING AND SCIENCE

Units Offered – Semesters 1 & 2, 2025

(Undergraduate Programme)

(**Rev.02** – changes are highlighted in yellow and/or refer to last page for revision note)

Date: Friday, December 13, 2024

UNIT CODE	UNIT TITLE	SEM 1, 2025	SEM 2, 2025	REMARKS
	DEPARTMENT:	ENGINEERING FIRS	T YEAR	
	HEAD OF DEPAR	TMENT: DR TAN YE	E YONG	
MATH1019	Linear Algebra and Statistics for Engineers	\checkmark		
INDE1001	Engineering Foundations: Principles,	\checkmark	\checkmark	
	Design and Communication	1		
ELEN1000	Electrical Systems	N	/	
MCEN1000	Engineering Mechanics	N	<u> </u>	
MATH1020	Calculus for Engineers Resources, Processes and Materials	N N	 √	
PRRE1003	Engineering	, , , , , , , , , , , , , , , , , , ,	v	
COMP1005	Fundamentals of Programming		\checkmark	
ELEN1002	Sustainability and Renewable Energy	\checkmark	\checkmark	Optional Unit
GEOL1007	Planetary Science		\checkmark	Optional Unit; Applies to
CHEM1000	Principles and Processes in Chemistry			students enrolled in
CMPE1000	Hardware Fundamentals	$\overline{\mathbf{v}}$		Semester 2, 2024 onwards
ISAD1000	Introduction to Software Engineering	N		
GEOL1008	Dynamic Earth	N		_
SPAT1007	Fundamentals of Geographic Information Systems	V		
BLDG1004	Introduction to Management in			_
	Construction			
	DEPARTMENT: CHEMI	CAL AND ENERGY E	NGINEERING	
	HEAD OF DEPARTMENT: PR	OF. IR. TS. STEPHAI	NIE CHAN YEN SAN	
PROGRAMME: CH	IEMICAL ENGINEERING			
CHEN2002	Process Heat Transfer			
CHEM1000	Principles and Processes in Chemistry		\checkmark	
CHEN2000	Mass and Energy Balances		\checkmark	
ENGR2000	Fluid Mechanics	\checkmark		Common Engineering Unit
CHEN3010	Reaction Engineering			
CHEN3003	Process Synthesis and Design			
CHEN3009	Fluid and Particle Processes			
ENGR4000	Engineering Industry Research Project 1			
ENGR4001	Engineering Industry Research Project 2	$\overline{\lambda}$		
CHEN4001	Process Safety and Risk Management	2	v	
CHEN4001 CHEN4012	, .	2/		
	Advanced Unit Operations	V		
CHEN2001	Thermodynamics		N	
CHEM1002	Reactivity and Function in Chemistry	N	N	
CHEN2003	Process Mass Transfer		<u> ۷</u>	
CHEN2004	Process Simulation and Data Analytics			
CHEN3001	Computational Transport Phenomena			
CHEN4016	Engineering Economics, Management and Sustainability			
CHEN3005	Process Instrumentation and Control			
CHEN4015	Chemical Engineering Design Project			
Specialisation Uni	its Year 3 (please refer to Course Structure for	list of specialisations of	offered):	
CHEN4018	Natural Gas Processing			SPUE-TRENT Transitional Energy Technologies Specialisation
CHEN3013	Sustainable Palm Oil Processing and Production		\checkmark	SPUE-ADMPR Advanced Materials and Processing Specialisation
CHEN3014	Water and Wastewater Treatment			SPUE-WAWMG Water, Air

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ENEN2001	Solid and Hazardous Waste Management			SPUE-WAWMG Water, Air and Waste Management Specialisation
Specialisation Uni	its Year 4 (please refer to Course Structure for	list of specialisations of	offered):	
CHEN4019	Electrochemical Storage and Conversion			SPUE-TRENT Transitional Energy Technologies Specialisation
CHEN4010	Advanced Thermodynamics and Reactor Engineering		\checkmark	SPUE-ADMPR Advanced Materials and Processing Specialisation
CHEN4020	Carbon Management	\checkmark		SPUE-WAWMG Water, Air and Waste Management Specialisation
ENEN3000	Aerial Emissions and Abatement		\checkmark	SPUE-WAWMG Water, Air and Waste Management Specialisation
PROGRAMME: EN	IERGY ENGINEERING			
CHEN2000	Mass and Energy Balances	\checkmark		Shared unit with Chemical Engineering
ELEN2000	Electrical Circuits	√		Shared unit with Electrical and Electronic Engineering
CHEN2002	Process Heat Transfer	 √		Shared unit with Chemica Engineering Common Engineering Unit
ENGR2000	Fluid Mechanics	v		
ENGR2002	Introduction to Energy Engineering			Shared unit with Chemica
CHEN2001	Thermodynamics			Engineering
ENGR2003	Sustainable Energy Systems Engineering			
MCEN2007	Mechanics for Energy Engineering			
PROGRAMME: PE	TROLEUM ENGINEERING			
PEEN3000	Formation Evaluation	\checkmark		
PEEN3001	Fundamentals of Reservoir Engineering	√		
PEEN3008	Advanced Reservoir Engineering			
PEEN3002	Petroleum Production Technology			
PEEN3005	Petroleum Geology and Geophysics	<mark>√</mark>		
PEEN4003	Advanced Drilling Engineering	<mark>√</mark>		
<mark>PEEN4004</mark>	Numerical Reservoir Simulation	<mark>√</mark>		
PEEN4011	Petroleum Field Development Planning			
	DEPARTMENT: CIVIL AI	ND CONSTRUCTION	ENGINEERING	
	HEAD OF DEPARTMENT: ASSO	CIATE PROF. IR. DR	WONG KWONG SO	NC
PROGRAMME: CI	VIL AND CONSTRUCTION ENGINEERING			
CSEN2000	Civil Engineering Construction Materials			
ENGR2000	Fluid Mechanics			Common Engineering Uni
CVEN2000	Civil Engineering Drawing and Surveying	N N		
STEN2005				
STEN2005	Structural Analysis of Determinate Structures	N N		
TREN3001	StructuresTransportation Engineering and Earthworks	√ √ √		
	StructuresTransportation Engineering and EarthworksGeotechnical Engineering AnalysisCivil and Construction Engineering	√ √ √ √	√	
TREN3001 GEOT3002	StructuresTransportation Engineering and EarthworksGeotechnical Engineering Analysis	√ √ √ √	√ √	
TREN3001 GEOT3002 CVEN4003 CVEN4004 CSEN3002	StructuresTransportation Engineering and EarthworksGeotechnical Engineering AnalysisCivil and Construction Engineering Research Project 1Civil and Construction Engineering Research Project 2Structural Actions and Steel Design		√ √	
TREN3001 GEOT3002 CVEN4003 CVEN4004 CSEN3002 CSEN4003	StructuresTransportation Engineering and EarthworksGeotechnical Engineering AnalysisCivil and Construction Engineering Research Project 1Civil and Construction Engineering Research Project 2Structural Actions and Steel Design Civil Engineering Practices, Quality and Legislation		√ √ √	
TREN3001 GEOT3002 CVEN4003 CVEN4004 CSEN3002 CSEN4003 STEN4003	StructuresTransportation Engineering and EarthworksGeotechnical Engineering AnalysisCivil and Construction Engineering Research Project 1Civil and Construction Engineering Research Project 2Structural Actions and Steel DesignCivil Engineering Practices, Quality and LegislationIntegrated Structural Design		√ √	
TREN3001 GEOT3002 CVEN4003 CVEN4004 CSEN3002 CSEN4003 STEN4003 GEOT4002	StructuresTransportation Engineering and EarthworksGeotechnical Engineering AnalysisCivil and Construction Engineering Research Project 1Civil and Construction Engineering Research Project 2Structural Actions and Steel DesignCivil Engineering Practices, Quality and LegislationIntegrated Structural DesignGeotechnical Design and Modelling		√ √	
TREN3001 GEOT3002 CVEN4003 CVEN4004 CSEN3002 CSEN4003 STEN4003	StructuresTransportation Engineering and EarthworksGeotechnical Engineering AnalysisCivil and Construction Engineering Research Project 1Civil and Construction Engineering Research Project 2Structural Actions and Steel DesignCivil Engineering Practices, Quality and LegislationIntegrated Structural DesignGeotechnical Design and ModellingAdvanced Structural ModellingStructural Analysis of Indeterminate		√ √ √	
TREN3001 GEOT3002 CVEN4003 CVEN4004 CSEN3002 CSEN4003 STEN4003 GEOT4002 STEN4004	StructuresTransportation Engineering and EarthworksGeotechnical Engineering AnalysisCivil and Construction Engineering Research Project 1Civil and Construction Engineering Research Project 2Structural Actions and Steel DesignCivil Engineering Practices, Quality and LegislationIntegrated Structural DesignGeotechnical Design and ModellingAdvanced Structural Modelling	$\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	√ √ √ √	

CSEN3000 CVEN3002 CSEN3003 CSEN4002 TREN4002 STEN4005 SPecialisation Unit BLDG2013	Civil Engineering Project and Cost Management Hydraulics and Hydrology Reinforced Concrete Design			
CSEN3003 CSEN4002 TREN4002 STEN4005 Specialisation Unit	Hydraulics and Hydrology			
CSEN4002 TREN4002 STEN4005 Specialisation Unit	Reinforced Concrete Design			
CSEN4002 TREN4002 STEN4005 Specialisation Unit				
TREN4002 STEN4005 Specialisation Unit	Integrated Design and Construction			
STEN4005 Specialisation Unit	Traffic and Road Pavement Engineering			
Specialisation Unit	Advanced Concrete Design and Construction		$\overline{}$	
	s Year 3 (please refer to Course Structure for I	list of specialisations of	offered).	
515 62013	Construction Plant and Equipment	$\sqrt{\frac{1}{\sqrt{1}}{\sqrt{\frac{1}{\sqrt{1}}}}}}}}}}$	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	SPUE-CONEN Construction
		· ·		Engineering Specialisation; SPUE-INFST Infrastructure Specialisation
TREN4002	Traffic and Road Pavement Engineering			SPUE-CONEN Construction Engineering Specialisation
STEN3003	Advanced Structural Analysis			SPUE-STENG Structural Engineering Specialisation; SPUE-INFST Infrastructure Specialisation
STEN4006	Structural Dynamics			SPUE-STENG Structural Engineering Specialisation; SPUE-INFST Infrastructure Specialisation
ENEN3009	Water and Environmental Engineering			SPUE-INFST Infrastructure Specialisation
STEN4005	Advanced Concrete Design and Construction			SPUE-INFST Infrastructure Specialisation
ENST3008	Biodiversity Conservation			SPUC-SUENV Sustainable Environment Specialisation
ENEN4014	Sustainable Urban Management and Planning		\checkmark	SPUC-SUENV Sustainable Environment Specialisation
CHEN2000	Mass and Energy Balances			SPUC-PROEN Process Engineering Specialisation (Specialisation offered by Department Chemical and Energy Engineering)
CHEN2004	Process Simulation and Data Analytics		\checkmark	SPUC-PROEN Process Engineering Specialisation (Specialisation offered by Department Chemical and Energy Engineering)
MXEN2003	Microcontroller Project	\checkmark		SPUC-ROBAU Robot Automation Specialisation (Specialisation offered by Mechanica Engineering)
MXEN3000	Mechatronics Design Project			SPUC-ROBAU Robot Automation Specialisation (Specialisation offered by Mechanica Engineering)
MCEN2003	Machine Dynamics	7		SPUC-MEDVB Mechanical Dynamics and Vibration Specialisation (Specialisation offered by Department Mechanical and Mechatronic Engineering)
MCEN2002	Fundamentals of Mechanical Design		7	SPUC-MEDVB Mechanical Dynamics and Vibration Specialisation (Specialisation offered by Departme Mechanical and Mechatronic Engineering)
PROGRAMME: ENV	VIRONMENTAL ENGINEERING			
ENGR2000	Fluid Mechanics			Common Engineering Unit
ENEN2004	Water Resource Management and Treatment Principles			
ENEN2002	Energy Management and Climate Change			
ENST2005	Environmental Chemistry and	Ń		
ENEN2003	Microbiology Wastewater Treatment Principles and		V	
	Design			
ENST2006	Environmental Monitoring and Analysis			
ENEN2001	Solid and Hazardous Waste Management			
	Principles of Geomechanics			Shared unit with Civil and

UNIT CODE	UNIT TITLE	SEM 1, 2025	SEM 2, 2025	REMARKS
ENST3000	Environmental Impact Assessment			Students should complete 250 credits or equivalent prior to enrolling into this unit
MGMT3000	Engineering Management and Professional Practice		√	Shared unit with Electrical and Computer Engineering
ENEN3000	Aerial Emissions and Abatement			
CVEN3002	Hydraulics and Hydrology		V	Shared unit with Civil and Construction Engineering
ENEN4009	Environmental Engineering Design	N		
ENEN4006	Environmental Engineering Research Project 1	N	N	
ENEN4007	Environmental Engineering Research Project 2	N	N 	
ENEN4004 ENEN4003	Geoenvironmental Engineering Environmental Integrated Design Project		N N	
ENEN4003 ENEN4008	Environmental Integrated Design Project Environmental Considerations in Construction		<u> </u>	
Specialisation Uni	ts Year 3 (please refer to Course Structure for l	list of specialisations of	offered):	
ENST3008	Biodiversity Conservation		<u> </u>	SPUC-SUENV Sustainable Environment Specialisation
ENEN4014	Sustainable Urban Management and Planning			SPUC-SUENV Sustainable Environment Specialisation
CHEN2000	Mass and Energy Balances	\checkmark		SPUC-PROEN Process Engineering Specialisation (Specialisation offered by Departmen Chemical and Energy Engineering)
CHEN2004	Process Simulation and Data Analytics			SPUC-PROEN Process Engineering Specialisation (Specialisation offered by Departmen Chemical and Energy Engineering)
MXEN2003	Microcontroller Project			SPUC-ROBAU Robot Automation Specialisation (Specialisation offered by Mechanical Engineering)
MXEN3000	Mechatronics Design Project		\checkmark	SPUC-ROBAU Robot Automation Specialisation (Specialisation offered by Mechanical Engineering)
CSEN2000	Civil Engineering Construction Materials	\checkmark		SPUC-CIVEN Civil Engineering Specialisation
STEN2005	Structural Analysis of Determinate Structures			SPUC-CIVEN Civil Engineering Specialisation
STEN2004	Structural Mechanics			SPUC-CIVEN Civil Engineering Specialisation
COMP1002	Data Structures and Algorithms	N		SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation (Specialisation offered by Electrical and Computer Engineering)
ISYS2014	Database Systems		N	SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation (Specialisation offered by Electrical and Computer Engineering)
•	ts Year 4 (please refer to Course Structure for l	list of specialisations of	offered):	
CHEN4020	Carbon Management			SPUC-SUENV Sustainable Environment Specialisation
ENEN4013	Environmental, Social and Governance		ν	SPUC-SUENV Sustainable Environment Specialisation
CHEN3009	Fluid and Particle Processes			SPUC-PROEN Process Engineering Specialisation (Specialisation offered by Departmen Chemical and Energy Engineering)
CHEN4001	Process Safety and Risk Management			SPUC-PROEN Process Engineering Specialisation (Specialisation offered by Departmen Chemical and Energy Engineering)
TREN3001	Transportation Engineering and Earthworks			SPUC-CIVEN Civil Engineering Specialisation
CSEN3000	Civil Engineering Project and Cost Management			SPUC-CIVEN Civil Engineering Specialisation

UNIT CODE	UNIT TITLE	SEM 1, 2025	SEM 2, 2025	REMARKS
COMP3010	Machine Learning	V		SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation (Specialisation offered by Electrical and Computer Engineering)
COMP3009	<mark>Data Mining</mark>		V	SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation (Specialisation offered by Electrical and Computer Engineering)
	DEPARTMENT: ELECTRIC HEAD OF DEPAR	AL AND COMPUTE		
PROGRAMME: BA	CHELOR OF TECHNOLOGY (COMPUTER SYSTE	MS AND NETWORKING	G)	
CMPE1000	Hardware Fundamentals			
COMP1007	Programming Design and Implementation		<u></u>	
MATH1019	Linear Algebra and Statistics for Engineers	N	√	Shared Unit with Engineering First Year
INDE1001	Engineering Foundations: Principles, Design and Communication	N		Shared Unit with Engineering First Year
CMPE2000	Data Communications and Network Management	N		
ELEN2002	Transmission and Interface Design			
ISEC2000	Fundamental Concepts of Cryptography			Optional Unit
ISEC2001	Fundamental Concepts of Data Security			Optional Unit / Elective Ur
COMP3001	Design and Analysis of Algorithms			Optional Unit
ICTE3002	Human Computer Interface			Optional Unit
ISAD1000	Introduction to Software Engineering			Optional Unit
COMP2003	Object Oriented Software Engineering		1	Elective Unit
CMPE3002	Computer Technology Project 1			
CMPE3003	Computer Technology Project 2		\checkmark	
COMP2006	Operating Systems	N		
CNCO3000	Distributed Networks	N		
COMT3002	Internet of Things Design and Communications	N		
COMP1002	Data Structures and Algorithms		$\overline{\mathbf{v}}$	
COMP2000	Computer Systems		$\overline{\mathbf{v}}$	
ETEN1000	Electronics		√	
ISYS2014	Database Systems			
COMP1000	Unix and C Programming			
CMPE2003	Microcomputers		√	
MGMT3000	Engineering Management and Professional Practice		<u>۸</u>	
CMPE3001	Embedded Systems Engineering		$\overline{\mathbf{v}}$	
CMPE3004	Network Engineering		$\overline{\mathbf{v}}$	
ISEC3004	Cyber Crime and Security Enhanced Programming		<u>۸</u>	Optional Unit
ISEC3005	Cyber Security – Intrusion Detection System and Incident Handling		√	Optional Unit
COMP2008	Mobile Application Development			Optional Unit
CMPE2002	Requirements Engineering			Elective Unit
ISEC1000	Cyber Security Concepts			Elective Unit
	ECTRICAL AND ELECTRONIC ENGINEERING	1		
ELEN2000	Electrical Circuits	\ ↓		
MATH2009	Calculus 2			

IVIATI 2005		•		
ETEN2001	Electronic Fundamentals			
CMPE2001	Foundations of Digital Design			
MXEN3004	Dynamic Modelling and Control	\checkmark		
ETEN3003	Power Electronics			
ELEN3002	Fundamentals of Engineering	\checkmark		
	Electromagnetics			
EEET4000	Engineering Research Project 1	\checkmark	\checkmark	
EEET4002	Integrated Design Project	\checkmark		
ETEN4001	Industrial Automated Systems	\checkmark		
EEET4001	Engineering Research Project 2			
ELEN4006	Smart and Micro Grids			From the old course
				structure. Still offered in
				2025S1 (handbook)

	UNIT TITLE	SEM 1, 2025	SEM 2, 2025	REMARKS
ELEN4001	Electric Power Generation, Transmission and Distribution		\checkmark	
MGMT3000	Engineering Management and Professional Practice			
ETEN2000	Signals and Systems			
ELEN3004	Renewable Energy Principles			
CMPE2003	Microcomputers			
ELEN2005	Electrical Machines		2	
COMT3000				
	Communications Engineering		N N	
ELEN4007	Electrical Machines Drives and Control		N	
ELEN3001	Power System Analysis		N	
pecialisation Uni	its Year 3 (please refer to Course Structure for l	list of specialisations	offered):	
ISEC2001	Fundamental Concepts of Data Security			SPUC-CYBSE Cybersecurity Specialisation
ISEC1000	Cyber Security Concepts			SPUC-CYBSE Cybersecurity Specialisation
ENST3008	Biodiversity Conservation			SPUC-SUENV Sustainable Environment Specialisation (Specialisation offered by Environmental Engineering)
ENEN4014	Sustainable Urban Management and Planning		V	SPUC-SUENV Sustainable Environment Specialisation (Specialisation offered by Environmental Engineering)
ENGR2000	Fluid Mechanics	N		SPUC-MESYS Mechanical Systems Specialisation (Specialisation offered by Mechanica and Mechatronic Engineering)
MCEN2001	Fundamentals of Thermodynamics		N	SPUC-MESYS Mechanical Systems Specialisation (Specialisation offered by Mechanic and Mechatronic Engineering)
COMP1002	Data Structures and Algorithms	N		SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation
<mark>ISYS2014</mark>	Database Systems		N	SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation
pecialisation Uni	its Year 4 (please refer to Course Structure for l	list of specialisations	offered):	· · · · ·
CHEN4020	Carbon Management	N		SPUC-SUENV Sustainable Environment Specialisation (Specialisation offered by Environmental Engineering)
ENEN4013	Environmental, Social and Governance		\checkmark	SPUC-SUENV Sustainable Environment Specialisation (Specialisation offered by
				Environmental Engineering)
COMT3002	Internet of Things Design and Communications			
COMT3002 ISEC3005			ν	SPUC-CYBSE Cybersecurity Specialisation
	Communications Cyber Security- Intrusion Detection System		√ √	SPUC-CYBSE Cybersecurity Specialisation SPUC-CYBSE Cybersecurity Specialisation
ISEC3005	Communications Cyber Security- Intrusion Detection System and Incident Handling	√	√ √ √	SPUC-CYBSE Cybersecurity Specialisation Specialisation Specialisation Specialisation Systems Specialisation
ISEC3005 ISEC3002 MCEN3002 COMP3010	Communications Cyber Security- Intrusion Detection System and Incident Handling Penetration Testing and Defence Applied Fluid Mechanics Machine Learning	√	√ √ √	SPUC-CYBSE Cybersecurity Specialisation SPUC-CYBSE Cybersecurity Specialisation SPUC-CYBSE Cybersecurity Specialisation SPUC-CYBSE Cybersecurity Specialisation SPUC-MESYS Mechanical Systems Specialisation (Specialisation offered by Mechanic and Mechatronic Engineering) SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation
ISEC3005 ISEC3002 MCEN3002	Communications Cyber Security- Intrusion Detection System and Incident Handling Penetration Testing and Defence Applied Fluid Mechanics	√ 	√ √ √ √	SPUC-CYBSE Cybersecurity Specialisation Specialisation Specialisation (Specialisation offered by Mechanical systems Specialisation offered by Mechanical and Mechatronic Engineering) SPUC-AIMLN Artificial Intelligence and Machine
ISEC3005 ISEC3002 MCEN3002 COMP3010 COMP3009	Communications Cyber Security- Intrusion Detection System and Incident Handling Penetration Testing and Defence Applied Fluid Mechanics Machine Learning		√ √ √ √	SPUC-CYBSE Cybersecurity Specialisation SPUC-MESYS Mechanical Systems Specialisation (Specialisation offered by Mechanic and Mechatronic Engineering) SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation SPUC-AIMLN Artificial Intelligence and Machine
ISEC3005 ISEC3002 MCEN3002 COMP3010 COMP3009	Communications Cyber Security- Intrusion Detection System and Incident Handling Penetration Testing and Defence Applied Fluid Mechanics Machine Learning Data Mining		√ √ √ √	SPUC-CYBSE Cybersecurity Specialisation SPUC-MESYS Mechanical Systems Specialisation (Specialisation offered by Mechanic and Mechatronic Engineering) SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation SPUC-AIMLN Artificial Intelligence and Machine
ISEC3005 ISEC3002 MCEN3002 COMP3010 COMP3009	Communications Cyber Security- Intrusion Detection System and Incident Handling Penetration Testing and Defence Applied Fluid Mechanics Machine Learning Data Mining CHELOR OF COMPUTING – SOFTWARE ENGINI		√ √ √ √	SPUC-CYBSE Cybersecurity Specialisation SPUC-MESYS Mechanical Systems Specialisation (Specialisation offered by Mechanic and Mechatronic Engineering) SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation SPUC-AIMLN Artificial Intelligence and Machine
ISEC3005 ISEC3002 MCEN3002 COMP3010 COMP3009 ROGRAMME: BA COMP1007	Communications Cyber Security- Intrusion Detection System and Incident Handling Penetration Testing and Defence Applied Fluid Mechanics Machine Learning Data Mining CCHELOR OF COMPUTING – SOFTWARE ENGINI Programming Design and Implementation Introduction to Software Engineering		√ √ √ √	SPUC-CYBSE Cybersecurity Specialisation SPUC-MESYS Mechanical Systems Specialisation (Specialisation offered by Mechanic and Mechatronic Engineering) SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation SPUC-AIMLN Artificial Intelligence and Machine
ISEC3005 ISEC3002 MCEN3002 COMP3010 COMP3009 ROGRAMME: BA COMP1007 ISAD1000 ISEC2001	Communications Cyber Security- Intrusion Detection System and Incident Handling Penetration Testing and Defence Applied Fluid Mechanics Machine Learning Data Mining CHELOR OF COMPUTING – SOFTWARE ENGINI Programming Design and Implementation Introduction to Software Engineering Fundamental Concepts of Data Security		√ √ √ √	SPUC-CYBSE Cybersecurity Specialisation SPUC-MESYS Mechanical Systems Specialisation (Specialisation offered by Mechanic and Mechatronic Engineering) SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation SPUC-AIMLN Artificial Intelligence and Machine
ISEC3005 ISEC3002 MCEN3002 COMP3010 COMP3010 COMP3009 ROGRAMME: BA COMP1007 ISAD1000 ISEC2001 NPSC1003	Communications Cyber Security- Intrusion Detection System and Incident Handling Penetration Testing and Defence Applied Fluid Mechanics Machine Learning Data Mining CCHELOR OF COMPUTING – SOFTWARE ENGINI Programming Design and Implementation Introduction to Software Engineering Fundamental Concepts of Data Security Integrating Indigenous Science and STEM			SPUC-CYBSE Cybersecurity Specialisation SPUC-MESYS Mechanical Systems Specialisation (Specialisation offered by Mechanic and Mechatronic Engineering) SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation SPUC-AIMLN Artificial Intelligence and Machine
ISEC3005 ISEC3002 MCEN3002 COMP3010 COMP3009 ROGRAMME: BA COMP1007 ISAD1000 ISEC2001	Communications Cyber Security- Intrusion Detection System and Incident Handling Penetration Testing and Defence Applied Fluid Mechanics Machine Learning Data Mining CHELOR OF COMPUTING – SOFTWARE ENGINI Programming Design and Implementation Introduction to Software Engineering Fundamental Concepts of Data Security			SPUC-CYBSE Cybersecurity Specialisation SPUC-MESYS Mechanical Systems Specialisation (Specialisation offered by Mechanic and Mechatronic Engineering) SPUC-AIMLN Artificial Intelligence and Machine Learning Specialisation SPUC-AIMLN Artificial Intelligence and Machine

ISAD3000 C ICTE3002 H COMP3001 E EIT301 E ISEC2000 F COMP3010 N COMP3010 N COMP3003 N COMP2002 L COMP1000 L ISYS2014 E MATH1019 L	Software Engineering Testing Capstone Computing Project 1 Human Computer Interface Design and Analysis of Algorithms Engineering Industrial Training Fundamental Concepts of Cryptography Machine Learning Mobile Cloud Computing Unix Systems Programming Unix and C Programming Data Structures and Algorithms Database Systems Linear Algebra and Statistics for Engineers	$ \frac{}{} $ Year 2 Summer So $ (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) $	v emester (December) v v v	Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year) Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year) Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year) Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)
ICTE3002 H COMP3001 E EIT301 E ISEC2000 F COMP3010 N COMP3010 N COMP3003 N COMP2002 L COMP1000 L ISYS2014 E MATH1019 L	Human Computer Interface Design and Analysis of Algorithms Engineering Industrial Training Fundamental Concepts of Cryptography Machine Learning Mobile Cloud Computing Unix Systems Programming Unix and C Programming Data Structures and Algorithms Database Systems	$ \frac{}{} $ Year 2 Summer So $ (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) $	√ emester (December)	Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)
COMP3001 E EIT301 E ISEC2000 F COMP3010 N COMP3003 N COMP2002 L COMP1000 L COMP1002 E ISYS2014 E MATH1019 L	Design and Analysis of Algorithms Engineering Industrial Training Fundamental Concepts of Cryptography Machine Learning Mobile Cloud Computing Unix Systems Programming Unix and C Programming Data Structures and Algorithms Database Systems	$ \frac{}{} $ Year 2 Summer So $ (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) $	emester (December) √ √ √	Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)
COMP3001 E EIT301 E ISEC2000 F COMP3010 N COMP3003 N COMP2002 L COMP1000 L COMP1002 E ISYS2014 E MATH1019 L	Design and Analysis of Algorithms Engineering Industrial Training Fundamental Concepts of Cryptography Machine Learning Mobile Cloud Computing Unix Systems Programming Unix and C Programming Data Structures and Algorithms Database Systems	$ \frac{}{Year 2 Summer So}} $ (2) (2) (2) (2) (2) (2) (2) (2) (2) (2) $	emester (December)	Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)
EIT301 E ISEC2000 F COMP3010 N CNCO3003 N COMP2002 L COMP1000 L COMP1002 E ISYS2014 E MATH1019 L	Engineering Industrial Training Fundamental Concepts of Cryptography Machine Learning Mobile Cloud Computing Unix Systems Programming Unix and C Programming Data Structures and Algorithms Database Systems	Year 2 Summer So √ √ √ √ √ √ √ √	emester (December)	Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)
ISEC2000 F COMP3010 N CNCO3003 N COMP2002 L COMP1000 L COMP1002 L ISYS2014 L MATH1019 L	Fundamental Concepts of Cryptography Machine Learning Mobile Cloud Computing Unix Systems Programming Unix and C Programming Data Structures and Algorithms Database Systems			 Intake); Y3 S2 (Mid-Year) Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year) Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year) Elective Unit Y3 S1 (Normal
COMP3010 N CNCO3003 N COMP2002 L COMP1000 L COMP1002 L ISYS2014 L MATH1019 L	Machine Learning Mobile Cloud Computing Unix Systems Programming Unix and C Programming Data Structures and Algorithms Database Systems	√ √ √ √ √		 Intake); Y3 S2 (Mid-Year) Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year) Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year) Elective Unit Y3 S1 (Normal
CNCO3003 M COMP2002 L COMP1000 L COMP1002 L ISYS2014 L MATH1019 L	Mobile Cloud Computing Unix Systems Programming Unix and C Programming Data Structures and Algorithms Database Systems	√ √ √ √		Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal Intake); Y3 S2 (Mid-Year)Elective Unit Y3 S1 (Normal
COMP2002 L COMP1000 L COMP1002 L ISYS2014 L MATH1019 L	Unix Systems Programming Unix and C Programming Data Structures and Algorithms Database Systems	√ √ √		Intake); Y3 S2 (Mid-Year) Elective Unit Y3 S1 (Normal
COMP1000 U COMP1002 D ISYS2014 D MATH1019 L	Unix and C Programming Data Structures and Algorithms Database Systems	√ √ √		
COMP1002 C ISYS2014 C MATH1019 L	Data Structures and Algorithms Database Systems	√		
ISYS2014 C MATH1019 L	Database Systems	N	√ √	
MATH1019 L				
	Linear Algebra and Statistics for Engineers		V	
CMPE2002 F			ν	Shared Unit with Engineering First Year
	Requirements Engineering			
COMP3008 [Distributed Computing			
COMP2008	Mobile Application Development			
ISEC3004 C	Cyber Crime and Security Enhanced Programming		\checkmark	
	Capstone Computing Project 2			
COMP3003 S	Software Architecture and Extensible Design	¥	<u>ا</u> ا	
	Foundations of Computer Science		2	Compulsory Elective
	Computing Topics		√ √	Elective Unit Y3 S2 (Normal
COMP2000 C	Computer Systems		\checkmark	Intake) Elective Unit Y3 S2 (Normal Intake); Y1 S1 (Compulsory Elective: Mid-Year)
ISEC1000 C	Cyber Security Concepts			Elective Unit Y3 S2 (Normal Intake)
	Cyber Security- Intrusion Detection System and Incident Handling		\checkmark	Elective Unit Y3 S2 (Normal Intake)
PROGRAMME: BACH	HELOR OF COMPUTING - CYBER SECURITY N	1AJOR		
COMP1007 P	Programming Design and Implementation		\checkmark	
	Introduction to Software Engineering			
	Fundamental Concepts of Data Security	$\overline{\lambda}$		
	Integrating Indigenous Science and STEM	<u></u>		
			2	
	Computer Communications		N	
	Operating Systems			
	Unix Systems Programming	<u></u>		
	Fundamental Concepts of Cryptography	<u></u>		
CNCO3003 N	Mobile Cloud Computing	√		
COMP3010 N	Machine Learning			
ISAD3000 C	Capstone Computing Project 1		\checkmark	
ISAD3001 C	Capstone Computing Project 2			
COMP1000 L	Unix and C Programming		\checkmark	
	Data Structures and Algorithms		\checkmark	
	Linear Algebra and Statistics for Engineers			Shared Unit with Engineering First Year
ISEC1000 C	Cyber Security Concepts			
	Computing Topics		\checkmark	
	Database Systems		\checkmark	
ISEC3004 C	Cyber Crime and Security Enhanced Programming			
	Penetration Testing and Defence			
ISEC3005 C	Cyber Security- Intrusion Detection System and Incident Handling		V	
	-	Voor 2 Curr	mor Somector	
	Engineering Industrial Training Computer Systems	rear 2 Sum	nmer Semester √	Elective Y2 S1 (<i>Mid-Year</i>); Elective Y3 S2, Y2 S2 (<i>Normal Intake</i>)
	Software Architecture and Extensible Design		\checkmark	Elective Y3 S2, Y2 S2 (Normal Intake)

UNIT CODE	UNIT TITLE	SEM 1, 2025	SEM 2, 2025	REMARKS
ICTE3002	Human Computer Interface			Elective Y3 S1 (Normal Intake)
COMP3001	Design and Analysis of Algorithms			Elective Y3 S1 (Normal Intake)
CMPE2002	Requirements Engineering			Elective Y2 S1 (<i>Mid-Year</i>) / Y2 S2; Y3 S2 (<i>Normal Intake</i>)
CMPE3008	Software Engineering Testing			Elective Y3 S1 (Normal Intake)
COMP2008	Mobile Application Development		\checkmark	Elective Y2 S1 (<i>Mid-Year</i>) / Y2 S2; Y3 S2 (<i>Normal Intake</i>)
COMP2003	Object Oriented Software Engineering			Elective Y3 S1 (Normal Intake)
	DEPARTMENT: MECHANICA	L AND MECHATRO	DNIC ENGINEERING	intukej
	HEAD OF DEPARTMENT: ASSO			YC
PROGRAMME: MI	ECHANICAL ENGINEERING			
ENGR2000	Fluid Mechanics			Common Engineering Unit
MCEN2000	Fundamentals of Strength of Materials			ŭ
MCEN2003	Machine Dynamics			
MCEN2006	Computer Aided Drawing and Engineering Modelling			
ENGR2001	Ethics and Sustainability in Engineering		\checkmark	
MCEN2004	Manufacturing Processes		\checkmark	
MCEN2002	Fundamentals of Mechanical Design		\checkmark	
MCEN2001	Fundamentals of Thermodynamics			
MCEN3004	Advanced Strength of Materials			
MCEN3008	Fundamentals of Heat Transfer			
MCEN3009	Linear Systems and Vibrations	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
MCEN3002	Applied Fluid Mechanics	v	~	
MCEN3002 MCEN3001	••		2	
	Machine Design		N	
MCEN3007	Exposure to Professional Engineering Practice		N	
MCEN4015	Integrated Mechanical Design	√		
MCEN4005	Mechanical Engineering Research Project 1	\checkmark		
MCEN4006	Mechanical Engineering Research Project 2			
For final year stud	-			
MCEN4005	Mechanical Engineering Research Project 1			
MCEN4006	Mechanical Engineering Research Project 2	\checkmark		
MCEN4015	Integrated Mechanical Design	\checkmark		
MCEN4002	Materials Engineering			(Elective 1, Year 4 Semester 1)
MCEN4004	Heat Transfer			(Elective 2, Year 4 Semester 1)
MCEN4011	Engineering Design Methodology			(Elective 3, Year 4 Semester
MCEN4010	Professional Engineering Practice			
BLAW2000	Law for Engineers		\checkmark	For any Mechanical students who are yet to
MCEN4001	Industrial Fluid Mechanics		√	take this unit (Elective 1 – Year 4,
MCEN4008	Finite Element Analysis		V	Semester 2) (Elective 2 – Year 4, Semester 2)
MCEN4009	Engineering Noise Control		N	(Elective 3 – Year 4, Semester 2)
Creation in the	to Vege 2 /places refer to Course Circle C	list of constalls at	offered).	
	ts Year 3 (please refer to Course Structure for	list of specialisations	offerea):	
MCEN4013	Advanced Refrigeration System Design	\checkmark		SPUE-COMEC Computational Mechanics
MCEN4001	Industrial Fluid Mechanic			Specialisation SPUE-COMEC
MOENIQOOQ	Machina Duramisa		<u>۸</u>	Computational Mechanics Specialisation
MCEN2003	Machine Dynamics	ν		SPUC-ROBAU Robot Automation Specialisation
MXEN2003	Microcontroller Project	\checkmark		SPUC-ROBAU Robot Automation Specialisation

UNIT CODE	UNIT TITLE	SEM 1, 2025	SEM 2, 2025	REMARKS
MXEN3000	Mechatronics Design Project		\checkmark	SPUC-ROBAU Robot Automation Specialisation
MCEN4002	Materials Engineering	\checkmark		Mechanical Flexible
		<mark>√</mark>		SPUC-MESYS Mechanical
ENGR2000	Fluid Mechanics	•		Systems Specialisation
	Fundamentals of Themselver star		<mark>√</mark>	SPUC-MESYS Mechanical
MCEN2001	Fundamentals of Thermodynamics			Systems Specialisation SPUC-MEDVB Mechanical
		<mark>√</mark>		Dynamics and Vibration
MCEN2003	Machine Dynamics	v		Specialisation
				SPUC-MEDVB Mechanical
			√	Dynamics and Vibration
MCEN2002	Fundamentals of Mechanical Design			Specialisation
CHEN2000	Mass and Energy Balances	<u>√</u>		SPUC-PROEN Process
				Engineering Specialisation (Specialisation offered by Department
				Chemical and Energy Engineering)
CHEN2004	Process Simulation and Data Analytics		<mark>√</mark>	SPUC-PROEN Process
				Engineering Specialisation
				(Specialisation offered by Department Chemical and Energy Engineering)
ENST3008	Biodiversity Conservation	√		SPUC-SUENV Sustainable
				Environment Specialisation
				(Specialisation offered by Environmental Engineering)
ENEN4014	Sustainable Urban Management and		√	SPUC-SUENV Sustainable
	Planning			Environment Specialisation
				(Specialisation offered by
CSEN2000	Civil Engineering Construction Materials	1		Environmental Engineering) SPUC-CIVEN Civil
	Civil Engineering construction waterials	<u>v</u>		Engineering Specialisation
				(Specialisation offered by Civil and
CTENDOOF	Chrushund Anglusia of Datauningto			Construction Engineering)
STEN2005	Structural Analysis of Determinate Structures		<mark>∨</mark>	SPUC-CIVEN Civil Engineering Specialisation
				(Specialisation offered by Civil and
				Construction Engineering)
GEOT2000	Principles of Geomechanics		N	SPUC-CIVEN Civil
				Engineering Specialisation (Specialisation offered by Civil and
				Construction Engineering)
CVEN2001	Water and Environmental Resources		<mark>\</mark>	SPUC-CIVEN Civil
				Engineering Specialisation (Specialisation offered by Civil and
				Construction Engineering)
COMP1002	Data Structures and Algorithms	√		SPUC-AIMLN Artificial
				Intelligence and Machine
				Learning Specialisation (Specialisation offered by Electrical
				and Computer Engineering)
<mark>ISYS2014</mark>	Database Systems		<mark>√</mark>	SPUC-AIMLN Artificial
				Intelligence and Machine
				Learning Specialisation (Specialisation offered by Electrical
				and Computer Engineering)
ISEC2001	Fundamental Concepts of Data Security	<mark>√</mark>		SPUC-CYBSE Cybersecurity
				Specialisation (Specialisation offered by Electrical
				(Specialisation offered by Electrical and Computer Engineering)
ISEC1000	Cyber Security Concepts		√	SPUC-CYBSE Cybersecurity
				Specialisation
				(Specialisation offered by Electrical and Computer Engineering)
pecialisation Uni	ts Year 4 (please refer to Course Structure for	list of specialisations of	offered):	
				SPUE-COMEC
			\checkmark	Computational Mechanics
MCEN4008	Finite Element Analysis			Specialisation
MCEN4011	Engineering Design Methodology		1	Mechanical Flexible
MCEN4009	Engineering Noise Control		N	Mechanical Flexible
	Applied Fluid Mechanics		N	SPUC-MESYS Mechanical
MCEN3002				Systems Specialication
MCEN3002	Fluid and Particle Processes			Systems Specialisation SPUC-PROEN Process
	Fluid and Particle Processes	N		Systems Specialisation SPUC-PROEN Process Engineering Specialisation

UNIT CODE	UNIT TITLE	SEM 1, 2025	SEM 2, 2025	REMARKS
CHEN4001	Process Safety and Risk Management		<mark>√</mark>	SPUC-PROEN Process
				Engineering Specialisation
				(Specialisation offered by Department
CHEN4020	Carbon Management	√		Chemical and Energy Engineering) SPUC-SUENV Sustainable
	Carbon Management	Y		Environment Specialisation
				(Specialisation offered by
				Environmental Engineering)
ENEN4013	Environmental, Social and Governance		<mark>√</mark>	SPUC-SUENV Sustainable
				Environment Specialisation
				(Specialisation offered by Environmental Engineering)
TREN3001	Transportation Engineering and	√		SPUC-CIVEN Civil
	Earthworks			Engineering Specialisation
				(Specialisation offered by Civil and
005110000				Construction Engineering)
CSEN3000	Civil Engineering Project and Cost		<u>ヽ</u>	SPUC-CIVEN Civil
	Management			Engineering Specialisation (Specialisation offered by Civil and
				Construction Engineering)
COMP3010	Machine Learning	√		SPUC-AIMLN Artificial
				Intelligence and Machine
				Learning Specialisation
				(Specialisation offered by Electrical
COMP3009	Data Mining		2	and Computer Engineering) SPUC-AIMLN Artificial
			<u>v</u>	Intelligence and Machine
				Learning Specialisation
				(Specialisation offered by Electrical
				and Computer Engineering)
COMT3002	Internet of Things Design and	<mark>√</mark>		SPUC-CYBSE Cybersecurity
	Communications			Specialisation
				(Specialisation offered by Electrical and Computer Engineering)
ISEC3005	Cyber Security - Intrusion Detection		√	SPUC-CYBSE Cybersecurity
	System and Incident Handling			Specialisation
	· / · · · · · · · · · · · · · · · · · ·			(Specialisation offered by Electrical
	ECHATRONIC ENGINEERING			and Computer Engineering)
MXEN2003	Microcontroller Project			
MCEN2003	Machine Dynamics	<u>ا</u>		
INCENZO05		<u>ا</u>		Shared unit with Electrica
ELEN2000	Electrical Circuits	,		and Electronic Engineering
				Shared unit with Electrica
CMPE2001	Foundations of Digital Design			and Electronic Engineering
				Shared unit with BTECH, B
COMP1002	Data Structures and Algorithms			COMP
				Shared unit with Electrica
ETEN2000	Signals and Systems			and Electronic Engineering
MXEN3000	Mechatronics Design Project			
ENGR2001	Ethics and Sustainability in Engineering			
		NT: APPLIED SCIEN	CES	
	HEAD OF DEPARTM	IENT: PROF. M.V. F		
PROGRAMME: A	HEAD OF DEPARTN PPLIED GEOLOGY	IENT: PROF. M.V. F		
PROGRAMME: AI		IENT: PROF. M.V. F		Shared unit with Bachelor
	PPLIED GEOLOGY			Shared unit with Bachelor of Computing
	PPLIED GEOLOGY			
NPSC1003	PPLIED GEOLOGY Integrating Indigenous Science and STEM	V		
NPSC1003	PPLIED GEOLOGY Integrating Indigenous Science and STEM Fundamentals of Geographic Information	V		
NPSC1003 SPAT1007	PLIED GEOLOGY Integrating Indigenous Science and STEM Fundamentals of Geographic Information Systems	√ √		
NPSC1003 SPAT1007 GEOL1008	PPLIED GEOLOGY Integrating Indigenous Science and STEM Fundamentals of Geographic Information Systems Dynamic Earth	√ √		
NPSC1003 SPAT1007 GEOL1008 MATH1013	PPLIED GEOLOGY Integrating Indigenous Science and STEM Fundamentals of Geographic Information Systems Dynamic Earth Introductory Mathematics	√ √		
NPSC1003 SPAT1007 GEOL1008 MATH1013 GEOL2008	PFLIED GEOLOGY Integrating Indigenous Science and STEM Fundamentals of Geographic Information Systems Dynamic Earth Introductory Mathematics Field Geology Techniques			
NPSC1003 SPAT1007 GEOL1008 MATH1013 GEOL2008	PFLIED GEOLOGY Integrating Indigenous Science and STEM Fundamentals of Geographic Information Systems Dynamic Earth Introductory Mathematics Field Geology Techniques Mineralogy and Geochemistry			
NPSC1003 SPAT1007 GEOL1008 MATH1013 GEOL2008 GEOL2003	PPLIED GEOLOGY Integrating Indigenous Science and STEM Fundamentals of Geographic Information Systems Dynamic Earth Introductory Mathematics Field Geology Techniques Mineralogy and Geochemistry Introduction to Geophysical Exploration			
NPSC1003 SPAT1007 GEOL1008 MATH1013 GEOL2008 GEOL2003 GEOP2006	PLIED GEOLOGY Integrating Indigenous Science and STEM Fundamentals of Geographic Information Systems Dynamic Earth Introductory Mathematics Field Geology Techniques Mineralogy and Geochemistry Introduction to Geophysical Exploration Methods			
NPSC1003 SPAT1007 GEOL1008 MATH1013 GEOL2008 GEOL2003 GEOP2006 GEOL2007	PLIED GEOLOGY Integrating Indigenous Science and STEM Fundamentals of Geographic Information Systems Dynamic Earth Introductory Mathematics Field Geology Techniques Mineralogy and Geochemistry Introduction to Geophysical Exploration Methods Structural Geology			
NPSC1003 SPAT1007 GEOL1008 MATH1013 GEOL2008 GEOL2003 GEOP2006 GEOL2007 GEOL3012	PLIED GEOLOGYIntegrating Indigenous Science and STEMFundamentals of Geographic Information SystemsDynamic EarthIntroductory MathematicsField Geology TechniquesMineralogy and GeochemistryIntroduction to Geophysical Exploration MethodsStructural GeologyBasin Dynamics			
NPSC1003 SPAT1007 GEOL1008 MATH1013 GEOL2008 GEOL2003 GEOL2007 GEOL3012 ERTH3001	PLIED GEOLOGY Integrating Indigenous Science and STEM Fundamentals of Geographic Information Systems Dynamic Earth Introductory Mathematics Field Geology Techniques Mineralogy and Geochemistry Introduction to Geophysical Exploration Methods Structural Geology Basin Dynamics Climate and the Biosphere			
NPSC1003 SPAT1007 GEOL1008 MATH1013 GEOL2008 GEOL2003 GEOL2007 GEOL3012 ERTH3001 GEOL3009	PFLIED GEOLOGYIntegrating Indigenous Science and STEMFundamentals of Geographic Information SystemsDynamic EarthIntroductory MathematicsField Geology TechniquesMineralogy and GeochemistryIntroduction to Geophysical Exploration MethodsStructural GeologyBasin DynamicsClimate and the Biosphere Field Studies of Sedimentary Basins			
NPSC1003 SPAT1007 GEOL1008 MATH1013 GEOL2008 GEOL2003 GEOL2007 GEOL3012 ERTH3001 GEOL3003	PLIED GEOLOGY Integrating Indigenous Science and STEM Fundamentals of Geographic Information Systems Dynamic Earth Introductory Mathematics Field Geology Techniques Mineralogy and Geochemistry Introduction to Geophysical Exploration Methods Structural Geology Basin Dynamics Climate and the Biosphere Field Studies of Sedimentary Basins Hydrogeology and Engineering Geology			of Computing

UNIT CODE	UNIT TITLE	SEM 1, 2025	SEM 2, 2025	REMARKS
GEOL1005	Fundamentals of Geology			
CHEM1003	Introduction to Chemistry		\checkmark	
GEOL2009	Geological Field Mapping		\checkmark	
GEOL2011	Petrology		\checkmark	
GEOL2004	Sedimentology and Stratigraphy		\checkmark	
ERTH2000	Earth Resources and Sustainability		\checkmark	
GEOL3001	Tectonics and the Dynamic Earth			
			\checkmark	Shared unit with Petroleum
PEEN3000	Formation Evaluation			Engineering
GEOL3008	Environmental Geoscience		\checkmark	
GEOL3006	Geoscience Project			

Note for Revision 02:

1.

PRRE4007	Hydrogen Energy
CHEN3012	Materials Selection and Corrosion
CHEN4003	Advanced Process Integration

The specialisations units listed above are not offered: SPUC-SIMDM Simulation and Data Management Specialisation

2. SPUC-SIMDM Simulation and Data Management Specialisation – this specialisation is not available for Engineering students.

3. All Honours unit for Applied Geology – are not available in 2025.

4. Addition of specialisations:

Specialisations	Offered by:
SPUC-AIMLN Artificial Intelligence and Machine Learning	Department Electrical and Computer Engineering
Specialisation	
SPUC-MESYS Mechanical Systems Specialisation	Department of Mechanical and Mechatronic Engineering
SPUC-MEDVB Mechanical Dynamics and Vibration Specialisation	Department of Mechanical and Mechatronic Engineering

5. Both of the units listed below (*Programme: Environmental Engineering*) are offered in Semester 2, 2025 only.

Environmental		
Engineering	ENEN4003	Environmental Integrated Design Project
Environmental		
Engineering	ENEN4004	Geoenvironmental Engineering

6. Update list of units (Programme: Petroleum Engineering)

PEEN3006 Drilling Engineering and Fluids Laboratory	Removed from Semester 2, 2025
CHEN3011 Petroleum Field and Refinery Processing	Removed from Semester 2, 2025
PEEN4004 Numerical Reservoir Simulation	Added in Semester 1, 2025
PEEN3001 Fundamentals of Reservoir Engineering	Added in Semester 1, 2025
PEEN3005 Petroleum Geology and Geophysics	Added in Semester 1, 2025
PEEN4003 Advanced Drilling Engineering	Added in Semester 1, 2025

