

4. Computer Engineering

YEAR 1

Semester 1		Semester 2	
CHEM181 Chemistry for Engineers 1A (8) or CHEM163 Chemistry & Society 1 (8)		CHEM191 Chemistry for Engineers 1B (8) or CHEM173 Chemistry & Society 2 (8)	
ENCH1TC Tech. Communication for Engineers (8)		ENEL1ED Electrical Design 1 (8) or ENAG1DE Introduction to Engineering Design (8)	
ENME1DR Engineering Drawing (8)		ENME1EM Intro. to Engineering Materials (8) or ENAG1MT Intro. to Engineering Materials (8)	
MATH131 Mathematics 1A(Eng) (16)		MATH141 Mathematics 1B(Eng) (16)	
MATH132 Applied Mathematics 1A(Eng) (16)		MATH142 Applied Mathematics 1B(Eng) (16)	
PHYS151 Engineering Physics 1A (16) or PHYS110 Mech., Optics & Thermal Phys (16)		PHYS120 Electromag, Waves & Mod. Phys (16) or PHYS152 Engineering Physics 1B (16)	

YEAR 2

Semester 1		Semester 2	
ENEL2CA Computer Methods 1 (8)		ENEL2CB Computer Methods 2 (8)	

ENEL2EA Electrical Principles 1	(16)	ENEL2DS Data Structures & Algorithms	(8)
MATH238 Mathematics 2A(Eng)	(16)	ENEL2EB Electrical Principles 2	(16)
MATH239 Applied Finite Mathematics	(8)	ENEL2EN Environmental Engineering	(8)
PHYS251 Optics and Wave Motion	(8)	ENEL2FT Field Theory	(8)
ZULUN101 Basic isiZulu Language Studies A or Electives	(16)	ENEL2SE Software Engineering 1	(8)
		MATH248 Mathematics 2B(Eng)	(16)
		ENEL2WS Workshop Training	(DP)

YEAR 3

Semester 1		Semester 2	
ENCH4ML Engineering Mgmt & Labour Relns	(8)	ENEL3AE Analogue Electronics 2	(8)
ENEL3CA Computer Engineering Design 1	(8)	ENEL3CB Computer Engineering Design 2	(8)
ENEL3CC Computer Methods 3	(8)	ENEL3CO Communications	(16)
ENEL3DS Digital Systems	(16)	ENEL3CS Control Systems 1	(8)
ENEL3SS Systems and Simulation	(8)	ENEL3DE Digital Electronics	(8)
ENEL3TA Analogue Electronics 1	(8)	ENEL3SF Software Engineering 2	(8)
MATH354 Mathematics 3(Eng)	(8)	MATH349 Discrete Mathematics	(8)
STAT370 Engineering Statistics	(8)	MATH360 Numerical Methods	(8)

YEAR 4

Semester 1		Semester 2	
ENEL4AA Design & Analysis of Algorithms	(8)	ENEL4CB Computer Eng. Design Project	(32)
ENEL4CA Computer Engineering Design 3	(16)	ENEL4EB Engineering Business	(8)
ENEL4CO Computer Architecture & Org.	(8)	ENEL4ES Embedded Systems	(8)
ENEL4DC Digital Communications	(8)	ENEL4IE Internet Engineering	(8)
ENEL4DT Data Communications	(8)	ENEL4RC Real Time Computing	(8)
ENEL4EE Engineering Entrepreneurship	(8)	ENEL4VW Vacation Work	(DP)
ENEL4OS Operating Systems for Engineers	(8)		
Plus two from the following options			
ENEL4CM E-commerce Systems	(8)	ENEL4AI Artificial Intelligence	(8)
ENEL4CS Control Systems 2	(8)	ENEL4CC Distributed Computing Systems	(8)
ENEL4DS Digital Signal Processing	(8)	ENEL4IP Image Processing	(8)
ENEL4SE Security and Encryption	(8)	ENEL4ST Selected Topics in Computer Eng.2	(8)
ENEL4TC Selected Topics in Computer Eng.1	(8)	ENEL4VL VLSI Design	(8)