

Augmented Electrical Engineering  
Module code list 2024

**YEAR 1**

MODULE	CR	MODULE	CR
<b>Semester 1</b>		<b>Semester 2</b>	
MATH160 Augmented Mathematics 1A (Eng) YEAR			16
PHYS160 Augmented Engineering Physics 1A YEAR			16
ENME160 Augmented Engineering Drawing	8	ENAG161 Augmented Engineering Materials	8
ENCH160 Augmented Technical Communication for Engineers	8	ENAG160 Augmented Engineering Design	8
<b>Total</b>	<b>16</b>		<b>48</b>

**YEAR 2**

MODULE	CR	MODULE	CR
<b>Semester 1</b>		<b>Semester 2</b>	
MATH161 Augmented Engineering Mathematics 1B YEAR			16
PHYS163 Augmented Engineering Physics 1B YEAR			16
MATH132 Applied Mathematics 1A	16	MATH142 Applied Mathematics 1B	16
CHEM181 Chemistry for Engineers 1A	8	CHEM191 Chemistry for Engineers 1B	8
ZULN101 Basic IsiZulu 1A If exempted, one elective module of 16 credits must be taken from outside college. The course must be chosen from the list of discipline approved courses.	16	ENEL2EN Environmental Eng	8
<b>Total</b>	<b>40</b>		<b>64</b>

**YEAR 3**

MODULE	CR	MODULE	CR
<b>Semester 1</b>		<b>Semester 2</b>	
ENEL2CA Computer Methods 1	8	ENEL2CB Computer Methods 2	8
ENEL2EA Electrical Principles 1	16	ENEL2EB Electrical Principles 2	16
ENME2MS Materials Strength	8	ENEL2ED Electrical Design 2	8
ENME2TF Thermofluids	8	ENEL2FT Field Theory	8
MATH238 Mathematics 2A (Eng)	16	ENEL2NP Nuclear & Semiconductor Phys	8
PHYS251 Optics and Wave Motion	8	ENEL2WS Workshop Course	DP
		MATH248 Mathematics 2B (Eng)	16
<b>Total</b>	<b>64</b>		<b>64</b>

**YEAR 4**

MODULE	CR	MODULE	CR
<b>Semester 1</b>		<b>Semester 2</b>	
ENEL3DS Digital Systems	16	ENEL3AE Analogue Electronics 2	8
ENEL3EA Electrical Design 3	8	ENEL3CS Control Systems 1	8
ENEL3MA Electrical Machines 1	8	ENEL3DE Digital Electronics	8
ENEL3SS Systems and Simulation	8	ENEL3EB Electrical Design 4	8
ENEL3TA Analogue Electronics 1	8	ENEL3EM E-M Theory	8
MATH354 Mathematics 3 (Eng)	8	ENEL3MB Electrical Machines 2	8
MATH239 Applied Finite Mathematics	8	ENEL3PS Power Systems 1	16
STAT370 Engineering Statistics	8	ENEL3PE Power Electronics 1	8
<b>Total</b>	<b>72</b>		<b>72</b>

**YEAR 5**

MODULE	CR	MODULE	CR
<b>Semester 1</b>		<b>Semester 2</b>	
ENEL4EE Eng Entrepreneurship	8	ENEL4EP Electrical Design Project	32
ENEL4EA Electrical Design 5	24	ENEL4VW Vacation Work	DP
ENCH4ML Eng Mngt & Labour Relations	8	ENEL4EB Engineering Business	8
ENEL4WA H1 Power Systems 2	8		
ENEL4SA H1 Selected topics in Elec. Eng. 1(SS)	8		
ENEL4HA H1 High Voltage Engineering 1	8		
<i>Option courses must be chosen in total to account for total of 32 credits.</i>			
<b>Plus 8cr of option courses</b>		<b>Plus 24cr of option courses</b>	
ENEL4CS H1 Control Systems 2	8	ENEL4HB H2 High Voltage Engineering 2	8
ENEL4MA H1 Electrical Machines 3	8	ENEL4MB H2 Electrical Machines 4	8
ENEL4PA H1 Power Electronics 2	8	ENEL4ES H2 Embedded Systems	8
<b>Total</b>	<b>72</b>		<b>64</b>