



## Bachelor of Telecommunications Engineering

The Bachelor of Engineering in Telecommunications is a degree programme designed to equip the learner with theoretical and practical knowledge. The graduates of this programme will demonstrate the ability to design and implement voice and data telecommunications in both fixed and mobile systems. The degree will further enable graduates to adequately manage protocols and standards that are applicable to a series of telecommunication networks while demonstrating the ability to identify and resolve advanced network complications.

Career opportunities in this field include: Aircraft & Electronics industries, Fixed & Mobile Telephone Networks, Software Engineering, Military & Police Communication Systems, Computer Engineering, Radar Systems.

**LEVEL 100 - SEMESTER 3**

Code	Title	Credits	Core\Elective	Pre-requisite	Co-requisite
MAT111	Mathematics for Engineers I	4	C		
EE111	Electronics and Communication Workshop	3	C		
CMS111	Professional Communication Studies	2	C		
EE112	Electricity and Magnetism	3	C		
ENG111	Engineering Science	3	C		

**LEVEL 100 - SEMESTER 4**

Code	Title	Credits	Core\Elective	Pre-requisite	Co-requisite
MAT121	Engineering Mathematics II	4	C	MAT111	
CMS121	Engineering Ethics	3	C		
EE121	DC Principles	3	C		
EE122	Architecture of Digital Systems	3	C		
EE123	Network Fundamentals	3	C		

**LEVEL 200 - SEMESTER 5**

Code	Title	Credits	Core\Elective	Pre-requisite	Co-requisite
MAT211	Engineering Mathematics III	4	C	MAT121	
EE211	AC Principles	3	C	EE121	
EE212	Digital Electronic Systems	3	C		
IT211	Introduction to Programming	3	C		
CEE211	Software Engineering Principles	3	C		

**LEVEL 200 - SEMESTER 6**

Code	Title	Credits	Core\Elective	Pre-requisite	Co-requisite
EE221	Digital Systems Design	3	C	EE212	
EE222	Signal & Systems	3	C	MAT211	
EE223	Electronic Devices	3	C		
IT221	C++ Programming	3	C	IT211	
IT222	ICT System Integration and Management	3	C		

**LEVEL 300 - SEMESTER 7**

Code	Title	Credits	Core\Elective	Pre-requisite	Co-requisite
EE311	Analogue Circuit Design	3	C	EE223	
TEL311	Engineering Electromagnetics	4	C	MAT211	
TEL312	Telecommunications Principles	3	C		
TEL313	Digital Signal Processing	3	C	EE222	
EE311	Computer Security	3	C	EE123	

**LEVEL 300 - SEMESTER 8**

Code	Title	Credits	Core\Elective	Pre-requisite	Co-requisite
TEL321	Group Project	6	C		
TEL322	Antennas and Propagation	3	C	TEL311	
TEL323	Digital Communications	3	C		
TEL324	Audiovisual Communications	3	C		

**LEVEL 400 - SEMESTER 9**

Code	Title	Credits	Core\Elective	Pre-requisite	Co-requisite
PTEL411	Individual Project	6	C	All year 3 courses	
TEL412	Mobile Communications	3	C	TEL312	
TEL413	Guided Waves	3	C	TEL322	
TEL414	Network Engineering	3	C	TEL323	

**LEVEL 400 - SEMESTER 10**

Code	Title	Credits	Core\Elective	Pre-requisite	Co-requisite
PTEL421	Individual Project	6	C	PTEL411	
TEL422	Photonics Network and Devices	3	C	EE223	
TEL423	Network Planning and Optimization	3	C	TEL414	
TEL424	Next Generation Networks	3	C	TEL414	

# Bachelor of Telecommunications Engineering

New Era College's degree programmes have been designed to respond timely and adequately to the ever-growing requirements of the technical industry. The College has brought into fruition, its own Bachelor of Engineering programme in Telecommunications to further enhance the educational skills and knowledge of its learners. Our engineering programmes are designed to reflect and respond to local and regional demands while upholding international industry standards.

New Era College's programmes are structured to produce highly specialized engineers for the Telecommunications industry, whose rapidly evolving environment demands the need for a high performance and technically skilled workforce.



## About New Era College

New Era College is located in one of Gaborone's up and coming real estate sectors. Constructed on more than eight hectares of land, New Era College's state-of-the-art campus infrastructure facilitates a conducive learning environment and encourages a holistic approach in the development of its students.

**For further enquiries please contact us at:**

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