PROGRAMME	COURSES
PRELIMINARY	
First Semester	
	ENGR0110 - Pre-engineering Physics I
	ENGR0120 - Pre-engineering Mathematics I
	ENGR0230- Biology for Engineers
	ENGR0130 - Chemistry for Engineers
	ELECTIVE 1 – (Humanities/Social Sciences course)
Second Semester	
	ENGR0210 - Pre-Engineering Physics II
	ENGR0220 - Pre-Engineering Mathematics II
	ENGR0250 – Pre-Engineering Physics III
	ENGR0240 - Computer Applications for Beginner Engineers
	ENGR0250 – Pre-Engineering Physics III
	FOUN1014 - Critical Reading & Writing in the Sciences
	ELECTIVE 1 - (Humanities/Social Sciences course)
FIRST YEAR	
CIVIL ENGINEERING	
First Semester	
	CENG1101-Civil Engineering Materials
	CENG1102-Computer Aided Design & Drafting
	CENG1103-Introduction to Computer Application in Civil Engineering
	CENG1104-Engineering Mechanics
	ENGR1100-The Engineering Profession
	ENGR1180-Engineering Mathematics I

Second semester	
	CVNG1000 - Mechanics of Solids
	CVNG1001 - Mechanics of Fluids 1
	CVNG1002 - Civil Engineering Design I
	CVNG1007 - Introduction to Geotechnical Engineering
	CENG1204 - Civil Engineering Geomatics
	FOUN1014 - Critical Reading and Writing
BIOMEDICAL ENGINEERING	
First semester	
	ENGR1100 - The Engineering Profession
	ENGR1180 - Engineering Mathematics I
	ECSE 1102 - Engineering Circuit Analysis and Devices
	ECSE1104 - Digital Circuits and Systems
	ECSE1109 - Programming for Engineers I
Second semester	
	ELNG1101 - Physics for Engineers
	ENGR1205 - Engineering Labs and Designs II
	ENGR1200 - Engineering Tools and Techniques
	ECSE1209 - Programming for Engineers II
	BMNG1210 - Introduction to Biomedical Engineering
	FOUN 1014 - Critical Reading and Writing
ELECTRICAL POWER	
First Semester	
	ENGR1180 - Engineering Mathematics I
	ECSE1104 - Digital Circuits and Systems
	ECSE1109 - Programming for Engineers I

	ENGR1100 - The Engineering Profession
	ECSE1102 - Engineering Circuit Analysis and Devices
	ENGR1105 – Engineering Laboratory and Design I
Second Semester	
	ELNG1101 - Physics for Engineers
	ENGR1205 - Engineering Labs and Designs II
	ENGR1200 - Engineering Tools and Practice
	EPNG1201 - Intro to Thermodynamics and Fluid Mechanics
	EPNG1210 - Electrical Machines I
	FOUN 1014 - Critical Reading and Writing
ELECTRONIC ENGINEERING	
First Semester	
	ENGR1180 - Engineering Mathematics I
	ECSE1104 - Digital Circuits and Systems
	ECSE1109 - Programming for Engineers I
	ENGR1100 - The Engineering Profession
	ECSE1102 - Engineering Circuit Analysis and Devices
	ENGR1105 – Engineering Laboratory and Design I
Second Semester	
	ELNG1101 - Physics for Engineers
	ENGR1205 - Engineering Labs and Designs II
	ENGR1200 - Engineering Tools and Practice
	ECSE1209 - Programming for Engineers II
	ECSE1207 - Computer Architecture and Organization
	FOUN1014 - Critical Reading and Writing
SECOND YEAR	
CIVIL ENGINEERING	

First Semester	
	CVNG2001 – Structural Mechanics
	CVNG2003 – Civil Engineering Design II (Semester 2)
	CVNG2005 – Mechanics of Fluids II
	CVNG2006 – Structural Design I
	CVNG2008 – Soil Mechanics I
	ENGR2120 – Technical Communications I
	GEOM2015 – Geomatics for Civil & Environmental Engineers
	MATH2230 – Engineering Mathematics II
Second semester	
	CVNG2003 – Civil Engineering Design II
	CVNG2006 – Structural Design I
	CVNG2009 – Soil Mechanics II
	CVNG2010 – Civil Engineering Management
	CVNG2011 – Engineering Hydrology
	FOUN1301 – Law, Governance, Economy and Society
	MATH2240 – Probability and Statistics
BIOMEDICAL ENGINEERING	
First semester	
	BMNG2130 - Biomaterials
	ECSE2104 – Microprocessors and Embedded Systems
	ECSE2106 – Signals and Linear Systems
	ECSE2102 – Semiconductor Devices and Fabrication
	MATH2230 – Engineering Mathematics II
	ENGR2120 – Technical Communications I
	ENGR2105 – Engineering Laboratory and Design III
Second semester	

	BMNG2210 – Biomedical Instrumentation I
	ENGR2205 – Engineering Laboratory and Design IV
	ECSE2202 – Analogue Circuits and Instrumentation
	ECSE2209 – Control System Engineering
	BMNG2230 – Biomechanics
	ENGM2280 – Probability and Statistical Systems
ELECTRICAL POWER	
First Semester	
	ECSE2104 – Microprocessors and Embedded Systems
	ECSE2106 – Signals and Linear Systems
	ENGR2105 – Engineering Laboratory and Designs III
	ENGR2120 – Technical Communications I
	EPNG2110 – Electrical Machines II
	MATH2230 – Engineering Mathematics II
Second Semester	
	ECSE2202 – Analogue Circuits and Instrumentation
	ECSE2209 – Control Systems Engineering
	ENGM2280 – Probability and Statistical Systems
	ENGR2205 – Engineering Laboratory and Designs IV
	EPNG2010 – Nuclear Physics & Reactor Theory
	EPNG2020 – Renewable Energy Systems
	ENGM2210 – Engineering Electromagnetism
ELECTRONIC ENGINEERING	
First Semester	
	ECSE2104 – Microprocessors and Embedded Systems
	ECSE2106 – Signals and Linear Systems
	ECSE2102 – Semiconductor Devices and Fabrication I

	MATH2230 – Engineering Mathematics II
	ENGR2120 – Technical Communications I
	ENGR2105 – Engineering Laboratory and Design III
Second Semester	
	ECSE2209 – Control Systems Engineering
	ENGM2280 – Probability and Statistical Systems
	ECSE2202 – Analogue Circuits and Instrumentation
	ECSE2208 – Analogue & Digital Communication Systems
	ENGR2205 – Engineering Laboratory and Design IV
	ENGM2210 – Engineering Electromagnetism
THIRD YEAR	
CIVIL ENGINEERING	
First Semester	
	CVNG3002 – Structural Analysis
	CVNG3003 – Structural Design II
	CVNG3005 – Foundation Engineering
	CVNG3007 – Environmental Engineering I
	CVNG3009 – Highway Engineering
	LANG3003 – Technical Writing
	CVNG3014 – Civil Engineering Design Project
	CVNG3015 – Special Investigative Project
Second semester	
	CVNG3014 – Civil Engineering Design Project
	CVNG3015 – Special Investigative Project
	CVNG3001 – Structural Engineering
	CVNG3008 – Environmental Engineering II
	CVNG3010 – Transportation Engineering

	CVNG3011 – Pavement Design & Management
	CVNG3013 – Coastal Engineering
BIOMEDICAL ENGINEERING	
First semester	
	BMNG3310 – Biomedical Instrumentation II
	LANG3003 – Technical Writing
	BMNG3112 – Human Physiology
	BMNG3116 – Introduction to Bioethics
	ECNG3020 – Special Biomedical Engineering Project
	ECNG3021 – Introduction to Engineering Management and Accounting System
Second semester	
	BMNG3230 - Clinical Engineering
	BMNG3240 – Rehabilitation Engineering and Design
	BMNG3218 – Introduction to Neuroscience
	BMNG3207 – Cell and Tissue Mechanics
	ECNG3020 - Special Biomedical Engineering Project
	ENGR3200 – Engineering Analysis and Practice
	ECSE3208 – Engineering Internet of Things Systems
	ELET3440 – Introduction to Robotics
	ENGR3000 – Engineering Internship
	2 FREE ELECTIVES
ELECTRICAL POWER	
First Semester	
	ECNG3020 - Final Year Engineering Special Project
	ECNG3021 - Introduction to Engineering Management and Accounting Systems
	LANG3003 – Technical Writing
	ELNG3050 – Power Electronics and Protection Circuits

	EPNG3010 - Nuclear Power Systems and Reactor Operations
	ECNG3015 – Industrial and Commercial Electrical Systems
Second Semester	
	ECNG3020 - Final year Engineering Special Project
	EPNG3014 – Power System Analysis
	ENGR3200 - Engineering Analysis and Practice
	ENGR300 - Engineering Internship
	MGMT3058 - New Venture Management
	ECNG3013 - Electrical Transmission and Distribution Systems
	ELNG3040 - Industrial Automation
Elective: 3 Credits (Choose any of the following courses, or any other Level 2 or Level 3 course from (1) a different program in the Faculty of Engineering, (2)the Faculty of Science and Technology (FST) or (3) a Language course from Faculty of Humanities and Education (FHE).	
	EPNG3012 – Cryogenics
	ELET3611 - Integrating Alternative Energy
	ECNG3010 - Electrical Machines & Drive Systems
	EPNG3014 - Power Systems Analysis
ELECTRONIC ENGINEERING	
First Semester	
	ECNG3020 - Final year Engineering Special Project
	ECNG3021 - Introduction to Engineering Management and Accounting Systems
	ECSE3108 - Data Communication and Computer Networks
	ECSE3209 – RF Circuits and Systems
	LANG3003 - Technical Writing
Telecommunication Option (Compulsory): 6 Credits	
	ELET3470 - Wireless Transmission and Fiber Optics
	ELET3480 - Wireless Communication Systems

Industrial Instrumentation Option (Compulsory): 6 Credits	
	ELNG3060 - Power Plant Instrumentation
	ELNG3040 – Industrial Automation
Second Semester	
	ECNG3020 – Final Year Engineering Special Project
	ENGR3200 – Engineering Analysis and Practice
	ENGR3000 – Engineering Internship
	ECSE3208 – Engineering IoT (Internet of Things) Systems
	MGMT3058 – New Venture Management
Telecommunication Option (Compulsory): 6 Credits	
	ELET3450 - Satellite communication & Global Navigation Satellite Systems
	ELNG3050 - Broadband Networks
Industrial Instrumentation Option (Compulsory): 6 Credits	
	ELNG3030 – Power Electronics and Protection Circuits
	EPNG3012 – Cryogenics
Elective: 3 Credits (Choose any of the following courses, or any other Level 2 or Level 3 course from (1) a different program in the Faculty of Engineering, (2)the Faculty of Science and Technology (FST) or (3) a Language course from Faculty of Humanities and Education (FHE).	
	EPNG3012 - Cryogenics
	ECSE3054 - Defects in Engineering Materials
	ELET3440 - Introduction to Robotics
	ELET3460 - Digital Signal and Image Processing