UNIVERSITY OF LIVINGSTONIA
FACULTY OF APPLIED SCIENCES

COMPUTER ENGINEERING ROAD MAP

Code	Title	Hours per week
LEVEL 1		
SEMESTER 1		
CEN 1101	Computer Systems and Applications	5
CEN 1102	Programming	5
PHY 2301	Electricity and Magnetism	5
MAT 1101	College Algebra	4
COM 1101	Academic Writing	2
ENG 1101	Introduction to English Grammar	2
CHL 1101	Spiritual Formation	4
SEMESTER 2		
CEN 1201	Computer Systems Maintenance	5
CEN 1202	Object Oriented Programming	5
CEN 1203	Electronics I	5
MAT 1201	Trigonometry and Introduction to Calculus	4
COM 1201	Introduction to Communication Skills	4
CHL 1201	Marriage and Family	4
LEVEL 2		
SEMESTER 3		
CEN 2301	Operating Systems	4
CEN 2302	Electronics II	5
CEN 2303	Computer Architecture	4
CEN 2304	Database Systems	5
MAT 2301	Calculus I	4
CHL 2301	Bible and Moral Issues	4
SEMESTER 4		
CEN 2401	Computer Networks and Security	5
PHY 3601	Circuits Theory	5
CEN 2403	Data Structures and Algorithm in C++	4
MAT 2401	Calculus II	4
STA 2401	Introduction to Probability and Statistics	4
CHL 2401	Christian Leadership and Development	4
LEVEL 3		
SEMESTER 5		
CEN 3501	Vocational Workshop Practice	5
CEN 3502	Electromagnetic Fields	5
CEN 3503	Digital Logic	5

CEN 3504	Systems Analysis and Design	4
CEN 3504	Research Methods	4
MAT 3501	Linear Algebra	4
STA 3501	Statistical Inference	4

SEMESTER 6

CEN 3601	Web Applications	5
CEN 3602	Elec. Eng Drawing & Installation Practice	5
CEN 3603	Human Computer Interaction	4
CEN 3604	Object Oriented Analysis and Design	4
CEN 3605	Applied Analogue Electronics	5
MAT 3602	Abstract Algebra	4

LEVEL 4
SEMESTER 7

CEN 4701	VLSI Systems Design	5
CEN 4702	Distributed Systems	4
PHY 3503	Energy Sources	5
CEN 4704	Modelling and Simulation	4
CEN 4705	Industrial Training (Attachment)	4
CEN 4706	Software Engineering	4
MAT 2302	Discrete Mathematics	4

SEMESTER 8

CEN 4801	Entrepreneurship	4
CEN 4802	Intelligent Systems	4
CEN 4803	Instrumentation and Control Engineering	5
CEN 4804	Computer Engineering Ethics	4
CEN 4805	Mobile Application Development	5
CEN 4806	Practical Research Project	4