Module Title:	**Telecommunications 6**
Academic year:	2009 – 2010
Credit Value:	4 – Mandatory
Pre- requisites:	TC41
Assessment:	70% Final Exam, 30% Continuous Assessment (C.A.)
Aims	This subject is the first of three subjects which provide a mathematical analysis of telecommunications systems. In Particular, this subject covers analysis of coding, sampling, baseband systems, and signal reception.
Module Content	• Information Theory and Coding • Source Coding • Channel Coding • Digital Transmission of Analogue Signals • Baseband Digital Transmission • Digital carrier modulation systems
Intended Learning Outcomes:	**On successful completion of the module the student will be expected to be able to:** 1. derive and apply various results relating to entropy, source coding and channel coding 2. describe and analyse a variety of sampling techniques 3. describe and analyse different methods of encoding, transmitting and receiving digital signals 4. derive equations and solve problems relating to ISI and noise performance of systems 5. use laboratory equipment to corroborate theoretical results and write a report to describe and analyse the activity