

Module Title:	Analogue Systems Design 1 – Semester 5
Academic year:	2009 – 2010
Credit Value:	5 – Mandatory
Pre- requisites:	Electronic Cert. or equivalent
Assessment:	70% Final Exam, 20% Practical, 10% Continuous Assessment (CA)
Aims	This subject gives students an introduction to control engineering.
Module Content	<ul style="list-style-type: none"> • Mathematical Models of Systems • Systems with feedback • Stability of Linear Feedback Systems • Frequency Response Analysis
Intended Learning Outcomes:	<p>On successful completion of the module the student will be expected to be able to:</p> <ol style="list-style-type: none"> 1. Develop and manipulate block diagram models of analog feedback systems 2. Measure and analyse transient and Steady state responses using transfer function and block diagrams 3. Analyse the effect of feedback on disturbances, parameter variation, noise and non-linearity in systems 4. Use plotting techniques (Bode plot) to determine system frequency responses 5. Assess the stability of analog systems using R-H test or Bode plots 6. Design series compensators to improve system stability margins, and/or error performance