ELEC3509 – Lab 4 – Marking Scheme

The marks are generally weighted as follows:

- 50% for showing how you obtained your results
- 50% for explaining what your results mean

Prelab

The prelab is worth **5 marks** and must be completed for **Day 1**.

To receive prelab marks, you must present the following:

- Specification Values based on Student Number
- Schematics:
  - Overall
  - Each Stage separately
- Design Equations (you must be able to explain these)
- Theoretical Performance plots
  - Overall
  - Each Stage separately
- Table of Components with Design Values

Checkout

The checkout is worth **5 marks** and must be completed for **Day 2**.

To receive checkout marks, you must present the following:

- Component Tables (Name, Design Value / Measured Value)
- Data Tables (Name, Theoretical Value / Simulated Value / Measured Value)
- Measured values for A_{mid}, f_{high}, f_{low} of your design
- Gain-Frequency plots with both simulated and measured data
  - Overall
  - Each Stage separately
- Demonstrate your circuit. It must be on and functioning within the design specification.

Report Marking Scheme

This table provides the minimum requirements and the total available marks for each. Completing only the minimum requirements is NOT sufficient to receive full marks.

Section	Min. Requirements	Available Marks
Introduction		5
Specification		5
Design		
	Calculate Required Transfer Function(s)	4
	Calculate Q, A_{mid}, BW, ω_0 (Overall and by Stage)	6
	Theoretical Filter Response plot(s) (Overall and by Stage)	2
	Design Calculations for Component Values	10
	Schematics (Overall and by Stage)	3
Simulation		
	Simulation Filter Response plot(s) (Overall and by Stage)	3
Implementation		2
Verification		
	Performance Summary Table	5
	Comparison of Performance to Specification	10
	Filter Response Plot(s) (Overall and by Stage; plot all of measured, simulated and theoretical data)	10
Conclusion		5
Overall Writing and Organization		20
	TOTAL	90