AME 21216 – Tech Memo Score Sheet

A9 – 1st Order Transient Response

NDID#:_____

For more details on any of the items below, please refer to the lab handout.

Item and Description	Points Awarded	Possible Points
Technical writing and format – Please address all questions from the lab handout in the paragraphs and captions. You should have the relevant equations in your paragraphs!		5
Plot of measured transient temperature *T* vs. *t* for the response to an impulse (both heating and cooling on same plot)		4
Plot of oscillatory heater power *q* and transient temperature *T* vs. *t* both on the same plot (Use "yyaxis left" to plot heater power on the left. Use "yyaxis right" to plot temperature on the right.)		5
A table containing: • **Measured air temperature T_{Air}** • **Measured maximum temperature T_{max}** • **Time constant τ** • **Non-dimensional parameter $\omega\tau$ for the oscillating heat source** • **Measured time lag Δt** • **Theoretical time lag Δt** • **Measured peak-to-peak amplitude of temperature oscillation** • **Theoretical peak-to-peak amplitude of temperature oscillation**		8
TOTAL		22