

AME 21216 – Tech Memo Score Sheet

A10 – Transient Signals

NDID#: _____

Lab Section (Day/time): _____

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 (both heating and cooling on same plot)		3
Plot of linearized temperature data $y(t)$ vs. t with linear curve fits for time constants (both heating and cooling on same plot)		3
A table containing all 4 extrapolated time constants τ for the thermocouples in water		2
Plot of measured amplitude vs. driving frequency with theoretical curve for ultrasonic transducer		3
Plot from FFT code of amplitude vs. frequency for one of the baseball bats		1
Plot of measured strain gauge output vs. time with curve fit for one of the baseball bats		3
A table containing: <ul style="list-style-type: none">• Resonance frequency f_0 UT• Damping ratio ζ_{UT} for the UT• Ringing frequency f_d for both bats• Damping ratio ζ_B for both bats		4
TOTAL		24