

## AME 21216 – Tech Memo Score Sheet

### A11 – Transient Signals

NDID#: \_\_\_\_\_

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

Item and Description	Points Awarded	Possible Points
<b>Technical writing and format</b> – Please address all questions from the lab handout in the paragraphs and captions. You should have the relevant equations in your paragraphs!		5
<b>Plot of measured transient temperature <math>T</math> vs. <math>t</math></b> (both heating and cooling on same plot)		3
<b>Plot of the linearized temperature data <math>y(t)</math> vs. <math>t</math> with linear curve fits</b> (both heating and cooling on same plot)		4
<b>Plot from FFT code of amplitude vs. frequency (spectral density) for one of the baseball bats</b>		3
<b>Plot of measured strain gauge output vs. time for one of the baseball bats</b>		3
<b>A table containing:</b> <ul style="list-style-type: none"><li>• Extrapolated time constant for heating <math>\tau_H</math></li><li>• Extrapolated time constant for cooling <math>\tau_c</math></li><li>• Ringing frequency <math>f_d</math> for the baseball bat</li><li>• Phase <math>\phi</math> in radians for the baseball bat</li><li>• Damping ratio <math>\zeta_B</math> for the baseball bat</li></ul>		5
<b>TOTAL</b>		23