# AME 40453 – Tech Memo Score Sheet

C6 – Single Water Tank

NDID#:_____

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

**Please include a horizontal line denoting the set-point height for the relevant plots listed below.**

| Item and Description | Points Awarded | Possible Points |
|---|---|---|
| **Technical writing** – Using the correct format, address all questions from the lab handout, and include equations from the pre-lab. | | 5 |
| **Part II - Plot of the measured flow rate in in$^3$/s as a function of the % duty cycle for the PWM circuit** | | 3 |
| **Part II - Table containing the system parameters: tank area $A$, time constant $\tau$, PI feedback coefficients $k_p$ and $k_I$, and calculated LQR coefficient $k$.** | | 5 |
| **Part III - Plot of the water height vs. time for a few different set points for the open loop controller (use horizontal lines to denote set points)** | | 5 |
| **Part IV - Plot of the water height vs. time for a few different set points for the PI feedback controller (use horizontal lines to denote set points)** | | 5 |
| **Part V - Plot of the water height vs. time for a few different set points for the LQR feedback controller (use horizontal lines to denote set points)** | | 5 |
| **TOTAL** | | 28 |