AAE 364L – Experiment #2 Grading Sheet **Name_____**
The Control of a Gantry

	Possible	Points
Cover Page - 1		
Title, Name, Course, Date, TA etc.	1	
Subtotal	**1**	
Introduction - 4		
Objectives/Goals/Purposes	2	
Intended Methods	2	
Subtotal	**4**	
Procedure - 10		
Definition of Variables including State Variables	2	
Schematic and Description of Apparatus	3	
Procedure of Experiments	5	
Subtotal	**10**	
Results - 20		
Part (i) ω_p from both linear approximation and experiment	2	
Part (ii) ω_n and ζ from eigenvalues of A	2	
Part (ii) ω_n from computed from Bode plot	1	
Part (ii) $\lvert G_\alpha(i\omega)\rvert$ from Bode plot and experiment	3	
Part (iii) Values of K from Simulink/Prelab and poles location, t_s when $d\alpha/dt\ (0) = \pi/2$	3	
Part (iii) Values of K from experiment and poles location, estimated t_s when $d\alpha/dt\ (0) = \pi/2$	3	
Part (iv) Values of K from Simulink/Prelab and poles location, t_s	3	
Part (iv) Values of K from experiment and poles location, t_s	3	
Subtotal	**20**	
Analysis and Discussion – 30		
Nonlinear EOMs	1	
Linearized EOMs and equilibrium points	1	
State variables, state vector, system matrices A,B,C,D	3	
Part (i)	5	
Part (ii)	5	
Part (iii)	5	
Part (iv)	5	
Discussion of state feedback and pole placement	5	
Subtotal	**30**	
Conclusion and Recommendation – 10		
Main Points	5	
Theoretical/Experimental Limitations	3	
Personal Lessons Learned and Suggestions for Improvement	2	
Subtotal	**10**	
Style, Participation, and Prelab – 25		
Organization	4	
Grammar	3	
Neatness	3	
Participation	5	
Prelab	10	
Subtotal	**25**	
Total	**100**	