

AOE 3034
Vibes & Control
23 August 1999

Instructor: Dr. E.M. Cliff

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Office Hours: M - W 1:00pm - 3:00pm (Randolph 219 C)
 T - Th 2:00pm - 4:00pm (Wright House)
 other times call 231 - 7667

Text: Ogata, K. **System Dynamics**, 3rd Edition, Prentice-Hall Publishing, 1998

Grading:

- | | |
|-----------------------|------|
| 1. Two in-class exams | 40 % |
| 2. Final Exam | 30 % |
| 3. Homework | 30 % |

Whereas you are permitted and even encouraged to discuss homework problems, please be sure that the work you turn in is your own. This means that you should not simply copy. There's a simple rule: if you would be embarrassed to tell your grandmother about it, then don't do it.

A variety of homework problems will be assigned, and selected problems will be collected for grading.

Outline

1. Introduction, complex variables and Laplace Transforms
Chapters 1 & 2 (except 2-3 & 2-8)
2. Mechanical System - Chapter 3 through Section 3-3.
3. Electrical System - Chapter 4 through Section 4-3.
4. Liquid and Thermal System - Chapter 5 through Section 5-2.

EXAM 1 (23 September)

5. Time-Domain Analysis - Chapter 6
- 6 Frequency Response &. Multiple Degrees of Freedom - Chapter 7

EXAM 2 (4 November)

7. Block Diagrams & Closed-Loop Response - Chapter 9
8. Characteristic Equ'n's , Stability & Feedback - Supplemental notes