12:00-1:15 Tuesday and Thursday, Rm 108 Thompson

1. Thursday Jan. 22 Introduction 1
2. Tuesday Jan 27 Introduction and Block diagrams 1, 3
3. Thursday Jan 29 First-order systems 5
4. Tuesday Feb 3 Block diagrams 3
5. Thursday Feb 5 Second-order systems 5
6. Tuesday Feb 10 Second-order systems 5
7. Thursday Feb 12 Second-order systems 5
8. Tuesday Feb 17 Types of control actions (material not on Test 1) 5
9. Thursday Feb 19 Stability analysis with the Routh array 5
10. Tuesday Feb 24 Steady-state error 5
11. Thursday Feb 26 Steady-state error 5
12. Tuesday Mar 3 Test 1, Chapters 1, 3, and 5
13. Thursday Mar 5 Introduction to pole movement, the root locus 6
14. Tuesday Mar 17 Root locus 6
15. Thursday Mar 19 Root locus 6
16. Tuesday Mar 24 Introduction to compensator design 7
17. Thursday Mar 26 Compensator design using root locus 7
18. Tuesday Mar 31 Compensator design using root locus 7
19. Thursday April 2 Compensator design using root locus 7
20. Tuesday April 7 Polar plots and the Nyquist stability criterion 8
21. Thursday April 9 Review of Bode plots 8
22. Tuesday April 14 Test 2 Chapters 6, 7 and 8
23. Thursday April 16 Relative stability, gain and phase margins 8
24. Tuesday April 21 Gain and phase margins 8
25. Thursday April 23 Compensator design using Bode plots, phase lag 9
26. Tuesday April 28 Compensator design using phase lag and lead 9
27. Thursday April 30 Compensator design using Bode plots, phase lead 9
28. Tuesday May 5 Compensator design using Bode plots, lag-lead 9

Final Exam Tuesday May 12 10:30-1:15, Office Hrs Tu 2-3:30 & Wed 3-4:30
HOMEWORKS and Due Dates

1. Thursday Jan 29 B 2.1, 2.7, 2.9, 2.13
2. Thursday Feb 5 B 3.1, 3.2, 3.3, 5.1
3. Thursday Feb 12 B 5.2, 5.3, 5.4, 5.11, 5.14, 5.15
4. Thursday Feb 19 B 5.17, 5.23, 5.25, 5.26, 5.27, 5.28
5. Thursday Feb 26 B 5.30, 5.31, 5.32
6. Tuesday Mar 17 B 6.1, 6.3, 6.5, 6.9
7. Tuesday Mar 24 B 6.15, 6.16a, 7.6, 7.10
8. Tuesday Mar 31 B 7.11, 7.12
9. Tuesday April 7 B 7.13, 7.14, 7.18
10. Tuesday April 21B 8.18, 8.20, 8.27, 8.28
11. Tuesday April 28 B 9.4, 9.6
12. Tuesday May 5 B 9.8, 9.9

For project assignments, go to ece.gmu.edu, then click on people, faculty by name, then click on Guy Beale under faculty emiriti, then syllabi from previous semesters, then Spring ’06, ECE421, finally projects.

Important Dates

Tuesday Mar. 3 Test 1
Tuesday, Mar 17 Project 1
Tuesday, Apr 14, Test 2
Tuesday May 5, Project 2
Tuesday May 12, Final Exam

Grading

Test 1 25%
Test 2 25%
Homework 10%
Project 1 5%
Project 2 5%
Exam 30%