

Course Syllabus

Text	Differential Equations, 3 rd ed., P. Blanchard, R. Devaney and G. Hall, Thomson Brooks/Cole, Boston University, 2006.		
Course Description	Classical techniques for first and higher order equations and systems of equations. Laplace transforms. Phase plane and stability analysis of non-linear equations and systems. Applications to physics, mechanics, electrical engineering, and environmental sciences. Prerequisites: MATH213 or MATH223		
Instructor Info	Instructor: Scott Strong Office: Chauvenet Hall 278 Office Hours:	Phone: 303.384.2446 Email: math225.field2008@gmail.com MTWR 12:00pm-1:00pm	
Grading	Exams (5 @ 10% each): 50% Quizzes (6 @ 5% each): 30% Discretionary: 20% Total: 100%	90 - 100% 80 - 89% 70 - 79% 60 - 69% Below 60%	A B C D F
Important Dates	First Day of Class Last Day to Drop Without a W Memorial Day Last Day To Withdraw End of Class	May 12 May 16 May 26 June 6 June 19	

Academic Honor Code

I pledge to uphold the high standards of academic ethics and integrity expressed by the Colorado School of Mines Student Honor Code by which I am bound. In particular, 'I will not misrepresent the work of others as my own, nor will I give or receive unauthorized assistance in the performance of academic coursework.' I understand that my instructor will report any infraction of academic integrity to the Department Head and that any such matter will be investigated and prosecuted fully.

Tentative Course Schedule

MAY

Monday	Tuesday	Wednesday	Thursday
12 1.1 - 4, 6, 12, 15, 21 1.2 - 1, 2, 9, 15, 19, 28, 35	13 1.3 - 1, 7, 11, 13, 15, 17 1.4 - 2, 4, 13	14 1.5 - 3, 6, 9, 10, 12 1.6 - 2, 9, 11, 14, 21, 25, 29, 30, 33, 34, 37	15 1.7 - 1, 3, 9
19 1.8 - 2, 3, 7, 10, 13 1.9 - 2, 3, 7, 10, 13	20 2.1 - 1, 2, 3, 4, 10, 15, 20, 22 2.2 - 2, 4, 9, 11, 13, 17, 19, 21, 23, 27	21 2.3 - 2, 4, 5, 15, 18 2.4 - 1, 3 3.1 - 6, 9, 17, 21, 25, 26, 27	22 Exam I - 50 Minutes 3.2 - 1, 4, 7, 10, 12, 13, 15, 18, 21, 24
26 Memorial Day - No Class	27 3.3 - 1, 5, 8, 10, 11, 13, 16, 20, 21, 24 3.4 - 2, 3, 6, 7, 9, 12, 14, 15, 22, 23	28 3.5 - 3, 4, 7, 8, 11, 21, 22, 23 3.7 - 2, 3, 5, 9, 11	29 Exam II - 50 Minutes Applications of Linear Systems

JUNE

Monday	Tuesday	Wednesday	Thursday
2 3.6 - 3, 6, 9, 12, 13, 14, 15, 21, 22, 23, 29, 34, 38 Appendix B - 1, 5, 10	3 4.1 - 1, 4, 9, 12, 13, 20, 21, 31, 37 4.2 - 1, 8, 9, 12, 13, 17, 19	4 4.3 - 9, 17, 21	5 Exam III - 50 Minutes 6.1 - 1, 3, 9, 13, 15, 23, 25
9 6.2 - 2, 3, 4, 7, 10, 11, 14 6.3 - 3, 5, 15, 16, 19, 27, 30, 31	10 6.4 - 1, 3, 4, 7 6.5 - 1, 3, 7, 9	11 Applications of the linear theory.	12 Exam IV - 50 Minutes 5.1 - 1, 4, 7, 11, 12, 17, 23
16 5.2 - 5, 9, 10, 15, 17, 19	17 5.3 - 1, 2, 9, 10, 11, 12 5.4 1, 2, 13, 14	18 Chaotic Dynamics Fractal Attractors	19 Exam V - 50 Minutes

To understand the course material it is absolutely essential that you do as many of the recommended problems as you can find time for. Mathematics is not a spectator sport! The previous listing highlights key material from the text. Solutions to most of the previous problems are on reserve at Arthur Lakes Library. The software associated with the text can be found at: <http://alamode.mines.edu/bdh.html>