Math. 412 Schedule

(Except for test days, this is only approximate.)

Block 1:

Topic	Days	Haberman sections	Fulling notes pages
Introductory examples*	2	1.1–1.4, 2.1–2.4	1–15
Fourier series	3	3.1–3.3, 3.6	16–29
Linearity and homogeneity	1	2.2	30–37
Rectangle problems	2	2.5.1, 7.1–7.4	38–48
Catchup or review	1		
Test A		**Thursday, Sept. 29**	

* wave equation in lecture, heat equation in textbook

Block 2:

Topic	Days	Haberman sections	Fulling notes pages
Fourier transforms	3	10.1–10.6	49–60
Green functions	3	9.1–9.3, (11.3)*	61–79
Green fns. for nonhom. problems	1	Ch. 8, 9.5	80–88
Sturm–Liouville problems	2	5.1–5.5, 5.8–5.10, 7.5	89–98
Catchup or review	1		
Test B		**Tuesday, Nov. 8**	

* Parts of Sec. 11.3 assume that you've studied all of Chapters 8 and 9.

Block 3:

Topic	Days	Haberman sections	Fulling notes pages
Polar coords., Bessel fns.	3	1.5, 2.5.2, 7.7–7.9	100–119
Spherical harmonics	2	7.10	120–127
Classification	1	2.5.4, 6.1	128–134
Catchup or review for final	1		
Final Exam		**Friday, Dec. 9, 3:00–5:00**	

Advanced reading:

Topic	Haberman sections	Fulling notes pages
More on the wave equation	Ch. 4, 11.2, Ch. 12	
Convergence thms. for Fourier series	3.4–3.5	App. B
History		App. C