

Math. 412 Schedule

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

Block 1:

<i>Topic</i>	<i>Days</i>	<i>Haberman sections</i>	<i>Fulling notes pages</i>
Introductory examples*	4	1.1–1.4, 2.1–2.4	1–15
Fourier series	4	3.1–3.3, 3.6	16–29
Catchup or review	1		

Test A

Monday, Sept. 17

* wave equation in lecture, heat equation in textbook

Block 2:

<i>Topic</i>	<i>Days</i>	<i>Haberman sections</i>	<i>Fulling notes pages</i>
Linearity and homogeneity	1	2.2	30–37
Rectangle problems	2	2.5.1, 7.1–7.4	38–48
Fourier transforms	4	10.1–10.6	49–60
Green functions	5	9.1–9.3, (11.3)*	61–79
Catchup or review	1		

Test B

Friday, Oct. 19

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

Block 3:

<i>Topic</i>	<i>Days</i>	<i>Haberman sections</i>	<i>Fulling notes pages</i>
Green fns. for nonhom. problems	2	Ch. 8, 9.5	80–88
Sturm–Liouville problems	3	5.1–5.5, 5.8–5.10, 7.5	89–99
Polar coords., Bessel fns.	5	1.5, 2.5.2, 7.7–7.9	100–119
Catchup or review	1		

Test C

Friday, Nov. 16

Block 4:

<i>Topic</i>	<i>Days</i>	<i>Haberman sections</i>	<i>Fulling notes pages</i>
Spherical harmonics	3	7.10	120–127
Classification	1	2.5.4, 6.1	128–134
Catchup or review for final	2		

Final Exam

Tuesday, Dec. 11, 8:00–10:00

Advanced reading:

<i>Topic</i>	<i>Haberman sections</i>	<i>Fulling notes pages</i>
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