Math 4581
Spring 2007
A. D. Andrew

Section numbers refer to the text *Boundary Value Problems and Partial Differential Equations, fifth edition,* by David L. Powers.

Monday	Tuesday	Wednesday	Thursday	Friday
8 Jan	**9** Introduction. 1.1, 1.2. Fourier series	**10**	**11** 1.2, 1.3. Convergence	**12**
15 HOLIDAY	**16** 1.4, 1.5. Uniform Convergence	**17**	**18** 1.5 - 1.7. Convergence and operations on Fourier series	**19**
22	**23** 2.1 - 2.2 Heat equation	**24**	**25** 2.2 - 2.3 Heat equation	**26**
29	**30** 2.4 - 2.5 Heat equation	**31**	**1 Feb** 2.5 - 2.6 Heat equation	**2**
5	**6** 2.7-2.8 Sturm-Liouville problems	**7**	**8** TEST	**9**
12	**13** 3.1 - 3.2 Wave equation	**14**	**15** 3.2 - 3.3 Wave equation	**16** MID TERM GRADES
19	**20** 3.4 - 3.5 Wave equation	**21**	**22** 4.1 - 4.2 Potential equation	**23**
26	**27** 4.2 Potential equation	**28**	**1 Mar** 4.3 Potential equation	**2** DROP DAY
5	**6** 4.4 - 4.5 Potential equation	**7**	**8** TEST	**9**
12	**13** 5.1 - 5.2 Higher dimensions	**14**	**15** 5.2 - 5.3 Higher dimensions	**16**
19 SPRING BREAK	**20** SPRING BREAK	**21** SPRING BREAK	**22** SPRING BREAK	**23** SPRING BREAK
26	**27** 5.4 - 5.5 Polar coordinates, Bessel functions	**28**	**29** 5.5 - 5.6 Cylindrical and polar coordinates	**30**

2 Apr	**3** 5.7 - 5.8 Circular membranes, Bessel functions	**4**	**5** 5.8 - 5.10 Spherical coordinates, Legendre polynomials	**6**
9	**10** 6.1 Laplace transform	**11**	**12** TEST	**13**
16	**17** 6.2 - 6.3 Laplace transform	**18**	**19** 6.3 - 6.4 Laplace transform methods	**20**
23	**24** Review	**25**	**26** Review	**27**
30 EXAM WEEK	**1 May**	**2**	**3**	**4**