Course Calendar*

Week	Date	Read	Topics	HW	Other
1		1.10-1.14	Power Series, Taylor Series		
1		1.15, 2.1-2.6	Accuracy of Approx, $\mathbb{C}$	1	
2		2.7-2.10, 2.11-2.13	Cmplx Power Series, $f(z)$,z^x		
2		2.14-2.15, 12.1-12.2	x^z, **Series Solns** of 2nd Order ODEs	2	
3		12.5, 12.7	Generating functions		
3		12.8, 12.11	Orthogonality, Frobenius	3	
4		12.12-12.13, 12.14	Bessel's Equation		Mini-Midterm
4				4	
5		7.1-7.4	**Fourier Series**		
5		7.5-7.7	More Fourier	5	
6		7.8-7.9,	Other Intervals, Even and Odd Fns		
6		7.12, [*]Extra Material	Fourier Transform, [*]Orthogonal Fns	6	
7		-7.11	Finish Fourier Series		
7		7.12, 8.8-8.9	Transforms: Fourier and Laplace	7	
8		**Spring Break**			
8		**Spring Break**			
9		8.10-8.11	Convolutions, Dirac Delta Functions		Midterm 1
9		8.11-8.12	Dirac Delta Functions, Green's functions	8	
10		6.1-6.6	**Vector Analysis** basic concepts, directional derivative		
10		(catch up)		9	
11		6.6-6.8	gradient, ∇, line integrals		Project Topics
11		6.9, 6.10	Green's Thm, Divergence Thm	10	Paragraph about project
12		6.11	Curl and Stokes Theorem		
12		**Project Workday**		11	
13		13.1-13.3	**PDEs** Laplace, heated plate		Project Draft 1
13		**Earlham Day**			Midterm 2
13		**Project Workday**		12	Midterm 2
14		13.4	Wave Equation, Vibrating String		Project Draft 2
14		**Project Workday**		13	
15		13.5, 13.6	Steady state temp in cylinder, circular membrane		
15		13.6, 13.7	circular membrane, sphere, diffusion	14	
		Final Exam	As per EC schedule. Take-home final, in-person presentations.		

Table 1: Course Schedule (HW, Reading, project work due on day listed; exams handed out on day listed)

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*If we get substantially ahead of this syllabus, we can include extra topics like numerical integrators or Noether's theorem.

This class has, in some iterations, spent a week covering **infinite series** (Boas sections 1.1-1.8). This year, we will assume that students are sufficiently familiar with those topics as they were covered in Math 280. **If this is not the case, let me know as soon as possible**.