

Tentative Schedule for MTH 483/583
Spring 2019

	Monday	Tuesday	Wednesday	Thursday	Friday
Apr.	1 Introduction	2	3 Algebraic and geometric properties of complex numbers	4	5 Powers, roots and quadratic formula
Apr.	8 Complex functions given as power series	9	10 HW 1 due Properties of exponential and trigonometric functions	11	12 Logarithm and root functions
Apr.	15 Computational examples	16	17 HW 2 due Topology of the plane, curve, domain	18	19 Limit and continuity
Apr.	22 Complex differentiation	23	24 HW 3 due Cauchy-Riemann equations & holomorphicity	25	26 Mapping properties of holomorphic maps
Apr./May	29 Mobius transformations, potential flow (if time allows)	30	1 HW 4 due Complex line integral	2	3 Midterm review
May	6 Midterm (In class)	7	8 Antiderivatives	9	10 Cauchy's theorem
May	13 Computational examples	14	15 HW 5 due Taylor series of holomorphic functions	16	17 Computational examples
May	20 Zeros, poles, essential singularities	21	22 HW 6 due Meromorphic functions, Laurent series	23	24 Residue theorem
May	27 No class (Memorial Day)	28	29 HW 7 due Calculus of residue	30	31 Applications of residue: integral of trigonometric functions
June	3 Applications of residue: improper integrals	4	5 HW 8 due Applications of residue: Fourier transform	6	7 (<i>last day of class</i>) Final review
June	10	11	12	13 Final exam 9:30-11:20 AM (In class)	14