

Numerical - CLASS SCHEDULE - Fall 2023

			Before Class			During Class	After Class
DATE	WEEK	DAY	Watch Online	Read	HW	In Class Topic	Due
08/29/23	1	Tuesday			HW1	Welcome - Intro	
08/31/23	1	Thursday	Intro to Python - Jupyter Notebooks		HW2	Programming in Python - Jupyter	HW1 and HW2 Due Sunday 9/3
09/05/23	2	Tuesday	Taylor Series	1.1	HW3	Taylor Series	
09/07/23	2	Thursday	Error in Taylor Series	1.2	HW4	Error in Taylor Series	HW3 and HW4 Due Sunday 9/10
09/12/23	3	Tuesday	Intro to Computational Error	Chapter 2	HW5	Computational Error	
09/14/23	3	Thursday	Root Finding: Bisection	3.1	HW6	Bisection method	HW5 and HW6 Due Sunday 9/17
09/19/23	4	Tuesday	Root Finding: Newton	3.2	HW7	Newton's Method	
09/21/23	4	Thursday	Fixed Point Iteration - Contraction Mapping	3.4	HW8	Fixed Point Iteration	HW7 and HW8 Due Sunday 9/24
09/26/23	5	Tuesday	More on Contraction Mapping		HW9	Contraction Mapping	
09/28/23	5	Thursday	Stability of Iterations	3.5	HW10	Stability of Iterations	HW9 and HW10 Due Sunday 10/1
10/03/23	6		FALL BREAK - 10/2 and 10/3 Our class only - canceled 10/5				
10/05/23	6						
10/10/23	7	Tuesday	Interpolation	4.1	HW11	Interpolation	
10/12/23	7	Thursday	Error in Interpolation	4.2	HW12	Error in Interpolation	HW11 and HW12 Due Sunday 10/15
10/17/23	8	Tuesday	Spline Interpolation	4.3	HW13	Spline Interpolation	
10/19/23	8	Thursday	Image Interpolation (2-D)		HW14	Image Interpolation	HW13 and HW14 Due Sunday 10/22
10/24/23	9	Tuesday	Numerical Integration	5.1	HW15	Numerical Integration	
10/26/23	9	Thursday	Numerical Integration	5.2	HW16	Numerical Integration	HW15 and HW16 Due Sunday 10/29
10/31/23	10	Tuesday	Numerical Differentiation and Error	5.4	HW17	Differentiation Error	

11/02/23	10	Thursday	Differential Equations	8.1	HW18	Differential Equations	HW17 and HW18 Due Sunday 11/5
11/07/23	11	Tuesday	Euler's Method	8.2	HW19	Euler's Method	
11/09/23	11	Thursday	Richardson's Method	8.3 and 8.4	HW20	Richardson's Method	HW19 and HW20 Due Sunday 11/12
11/14/23	12	Tuesday	Taylor Methods/ Runge Kutta	8.5	HW21	Taylor Methods and Runge Kutta	
11/16/23	12	Thursday	Multi-Step Methods	8.6	HW22	Multi-Step Methods	HW21 and HW22 Due Sunday 11/19
11/21/23	13	Tuesday	Review of Linear Systems	6.1 and 6.2	HW23	Review of Linear Systems	
11/23/23	13	Thursday	Thanksgiving Break				
11/28/23	14	Tuesday	Gaussian Elimination	6.3	HW24	Gaussian Elimination	
11/30/23	14	Thursday	Jacobi Iteration	6.6	HW25	Jacobi Iteration	HW23, HW24 and HW25 Due Sunday 12/3