

Fall Calendar

This calendar provides a day-to-day look at the material covered in the course. It is subject to change depending on how the course unfolds.

MONDAY	WEDNESDAY	FRIDAY
<div style="display: flex; justify-content: space-between;"> Aug 29th 1 </div> Summation Notation, Sequences, Infinite Series, Geometric Series	<div style="display: flex; justify-content: space-between;"> 31st 2 </div> Convergent and Divergent Series, Convergence Tests	<div style="display: flex; justify-content: space-between;"> Sep 2nd 3 </div> Alternating Series, Conditional Convergence
<div style="display: flex; justify-content: space-between;"> 5th 4 </div> Power Series, Intervals of Convergence	<div style="display: flex; justify-content: space-between;"> 7th 5 </div> Maclaurin and Taylor Series	<div style="display: flex; justify-content: space-between;"> 9th 6 </div> Using Series to Approximate Physical Problems
<div style="display: flex; justify-content: space-between;"> 12th 7 </div> Integers, Ordinality & Cardinality, Operators, Inverse Operators, Negative, Rational & Irrational Numbers, Algebraic Numbers and Equations	<div style="display: flex; justify-content: space-between;"> 14th 8 </div> Real and Transcendental Numbers, Fundamental Theorem of Algebra, Complex Numbers, Complex Plane, Norm, Complex Conjugation	<div style="display: flex; justify-content: space-between;"> 16th 9 </div> Euler Relation, Trigonometric Functions, Hyperbolic Functions, Polar Coordinates, Unity of Trigonometry
<div style="display: flex; justify-content: space-between;"> 19th 10 </div> Vectors & Scalars, Vectors Spaces, Vector Multiplication	<div style="display: flex; justify-content: space-between;"> 21st 11 </div> Vector Products, Triple Products, Inner Products	<div style="display: flex; justify-content: space-between;"> 23rd 12 </div> Groups, Rings, and Mathematical Fields
<div style="display: flex; justify-content: space-between;"> 26th 13 </div> Column & Row Vectors, Normed Vector Spaces	<div style="display: flex; justify-content: space-between;"> 28th 14 </div> Inner Product Spaces, Dual Space, Linear Independence, Basis Vectors, Span	<div style="display: flex; justify-content: space-between;"> 30th 15 </div> Dimension, Orthogonal Vectors, Orthonormal Vectors, Kronecker Delta, Projection & Projection Operators
<div style="display: flex; justify-content: space-between;"> Oct 3rd 16 </div> Linear Operators, Linear Transformations	<div style="display: flex; justify-content: space-between;"> 5th 17 </div> Matrices, Matrix Products, Geometry and Iterated transformations	<div style="display: flex; justify-content: space-between;"> 7th 18 </div> Determinants, Traces, Eigenvalues & Eigenvectors
<div style="display: flex; justify-content: space-between;"> 10th 19 </div> Fall Break	<div style="display: flex; justify-content: space-between;"> 12th 20 </div> Geometry of Eigenvalues & Eigenvectors	<div style="display: flex; justify-content: space-between;"> 14th 21 </div> Homogeneous Systems of Equations and Matrices

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17th 22 Inverse & Transpose of a Matrix	19th 23 Hermitian Conjugate, Hermitian Matrices, Unitary Matrices	21st 24 Outer Products, Matrix Transforms, Commutators
24th 25 Ordinary Differential Equations, Separable Equations, First-order ODEs	26th 26 Second-order linear ODEs	28th 27 Inhomogeneous linear ODEs
31st 28 Partial Derivatives, Total Differentials	Nov 2nd 29 Approximations with Differentials, Intro to the Chain Rule	4th 30 Implicit Differentiation, Chain Rule
7th 31 Max and Min Problems with Partial	9th 32 Max and Min Problems with Constraints, Lagrange Multipliers	11th 33 Change of Variables, Differentiation of Integrals
14th 34 Probability Definitions, Conditional Prob., Independent Events	16th 35 Probability Theorems, Bayes' Formula	18th 36 Mean Value, Standard Deviation, Discrete Distributions
21st 37 Counting, Permutations	23rd 38 Combinations	25th 39 Thanksgiving Break
28th 40 Continuous Distributions, Mean, Standard Deviation	30th 41 Binomial and Gaussian Distributions	Dec 2nd 42 Poisson Distribution and Confidence Intervals
5th 43 Bayesian Parameter Estimation, Central Limit Theorem	7th 44 Advising day	9th 45 Bayesian Parameter Estimation II and Chi-Squared Methods
12th 46 Completion days	14th 47 Completion days	16th 48 Completion days