

## PH 2301 SCHEDULE

Date	Responsibilities	Topic
T, 3/11		Intro. to Course and Mandatory Pre Test
W, 3/12	No Class	
Th, 3/13	Chapter One, Sections 1.1.1 – 1.1.5, and Sections 1.2.1 – 1.2.7	Vector Algebra and Differential Calculus
F, 3/14	Chapter One, Sections 1.3.1 – 1.3.6	Integral Calculus
M, 3/17	Chapter One, Sections 1.4.1 – 1.4.2, Sections 1.5.1 – 1.5.3, and Sections 1.6.1 – 1.6.2	Curvilinear Coordinates, the Dirac Delta Function, and the Theory of Vector Fields
T, 3/18	<b>HW One Self-Grade Due</b>	Review for Exam One
W, 3/19		<b>Exam One: Chapter One, Sections 1.1.1 – 1.6.2, inclusive</b>
Th, 3/20	Chapter Two, Sections 2.1.1 – 2.1.4, and Sections 2.2.1 – 2.2.2	The Electric Field and Divergence
F, 3/21	Chapter Two, Sections 2.2.3 – 2.2.4	Applications of Gauss' Law, and The Curl of E
M, 3/24	Chapter Two, Sections 2.3.1 – 2.3.2	Introduction to Potential, Comments on Potential
T, 3/25	Chapter Two, Sections 2.3.3 – 2.3.5	Poisson's Equation and Laplace's Equation, The potential of a Localized Charge Distribution, and Electrostatic Boundary Conditions
W, 3/26	No Class	
Th, 3/27	Chapter Two, Sections 2.4.1 – 2.4.3	The work done to move a charge, the energy of a point charge distribution, and the energy of a continuous charge distribution
F, 3/28	Chapter Two, Sections 2.4.4, 2.5.2, 2.5.2	Comments on electrostatic energy, Basic properties of conductors, and induced charges
M, 3/31	Chapter Two, Sections 2.5.3, 2.5.4	Surface Charge and the Force on a conductor, capacitors
T, 4/1	<b>HW Two Self-Grade Due</b>	Review for Exam Two
W, 4/2		<b>Exam Two: Chapter Two, Sections 2.1.1 – 2.5.4, inclusive</b>
Th, 4/3	Chapter Three, Sections 3.1.1 – 3.1.3	Introduction to Laplace's Equation in One and Two Dimensions
F, 4/4	Chapter Three, Sections 3.1.4 – 3.1.6	Laplace's Equation in Three Dimensions, Boundar Conditions and Uniqueness Theorems, Conductors and the Second Uniqueness Theorem
M, 4/7	Chapter Three, Sections 3.2.1 – 3.2.4	The Classic Image Problem, Induced Surface Charge, Force and Energy, Other Image Problems
T, 4/8	Chapter Three, Section 3.3.1	Separation of Variables in Cartesian Coordinates
W, 4/9	Chapter Three, Section 3.3.2	Separation of Variables in Spherical Coordinates
Th, 4/10	<b>HW Three Self-Grade Due</b>	Review for Exam Three
F, 4/11		<b>Exam Three: Chapter Three, Sections 3.1.1 – 3.3.2, inclusive</b>
M, 4/14	Chapter Five, Sections 5.1.1 – 5.1.2	The Lorentz Force Law, Magnetic Fields, Magnetic Forces
T, 4/15		No Class. Project Presentation Day.
W, 4/16	No Class	
Th, 4/17	Chapter Five, Sections 5.1.3, 5.2.1	Currents, The Biot-Savart Law, Steady Currents
F, 4/18	Chapter Five, Section 5.2.2	The Magnetic Field of a Steady Current
M, 4/21	Chapter Five, Sections 5.3.1 – 5.3.3	Straight-Line Currents, The Divergence and Curl of B, Applications of Ampere's Law
T, 4/22	Chapter Five, Sections 5.3.4 – 5.4.2	Comparison of Magnetostatics and Electrostatics, The Vector Potential, Magnetostatic Boundary Conditions
W, 4/23		Mandatory Post Test
Th, 4/24	<b>HW Four Self-Grade Due</b>	Review for Exam Four
F, 4/25		<b>Exam Four: Chapter Five, Sections 5.1.1 – 5.4.2, inclusive</b>