## **Physics** BA Applied Physics/Pre-Eng.

45-48 credits (Major Code: 084, Concentration Code: 08B)

## Courses Required for Major

Nun	nber	Title	Credits	Perspectives
Phys	145.4	Principles of Physics I	4	AoK: NS
Phys	145.1	Principles of Physics I Laboratory	1	AoK: NS-L
Phys	146.4	Principles of Physics II	4	AoK: NS
Phys	146.1	Principles of Physics II Laboratory	1	AoK: NS-L
Phys	222	Optics	3	
Phys	225	Solid State Electronics	4	
Phys	233	Intermediate Methods of Math Physic	es I 3	
Phys	235	Classical Physics Laboratory	2	
Phys	237	Mechanics	4	
Phys	242 / 243	Thermodynamics /	3	
		Thermodynamics and Statistical Mec	hanics 4	
Phys	260	Introduction to Modern Physics	4	
Phys	310	Electromagnetism 1	4	
Phys	377	Modern Physics Laboratory	2	

**Elective Requirements**: One 200 level or above Physics course (excluding Physics 204), and one 3- or 4-credit science/mathematics course, approved by the department.

## **Math Prerequisite** (needed for course number in parentheses)

Number	Title	Credit		
Math 151 (for Phys 145) Math 152 (for Phys 146)	Calculus/ Differentiation & Integration Calculus/ Integration & Infinite Series	4 4		
OR				
Math 141 (for Phys 145) Math 142 (for Phys 146)	Calculus/Differentiation Calculus/Integration	3		
Math 201 (for Phys 233)	Calculus	4		

AoK = Area of Knowledge

NS = Natural Science

NS-L = Natural Science with Lab (only if including the 4 credit related lecture course)