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Text Book:

“Physics” by J. W. Kane & M. M. Sternheim, 3rd edition , New York, john Wiley & Sons, (1992).

References:

1. Physics for Scientists and Engineers with Modern Physics by R. A. Serway, and Jewett 6th edition, Thomson Brooks/ Cole Publishing.
2. Fundamentals of Physics by D. Halliday and R. Resnick, 10th edition, John Wiley & Sons, (1991).
3. University Physics by H. Benson, John Wiley & Sons, (1991).

Assessment:

Assessment Method	% Grade	Date
First Exam	25	
Second Exam	25	
Class Activites	10	
Final Exam	40	