Exam III

10. Rotation of a Rigid Object About a Fixed Axis

- 10.1 Angular Position, Velocity, and Acceleration
- 10.2 Analysis Model: Rigid Object Under Constant Angular Acceleration
- 10.3 Angular and Translational Quantities
- 10.4 Torque
- 10.5 Analysis Model: Rigid Object Under a Net Torque
- 10.6 Calculation of Moments of Inertia
- 10.7 Rotational Kinetic Energy
- 10.8 Energy Considerations in Rotational Motion
- 10.9 Rolling Motion of a Rigid Object

11. Angular Momentum

- 11.1 The Vector Product and Torque
- 11.2 Analysis Model: Nonisolated System (Angular Momentum)
- 11.3 Angular Momentum of a Rotating Rigid Object
- 11.4 Analysis Model: Isolated System (Angular Momentum)
- 11.5 The Motion of Gyroscopes and Tops

12. Static Equilibrium and Elasticity

- 12.1 Analysis Model: Rigid Object in Equilibrium
- 12.2 More on the Center of Gravity
- 12.3 Examples of Rigid Objects in Static Equilibrium

12.4 Elastic Properties of Solids

13. Universal Gravitation

- 13.1 Newton's Law of Universal Gravitation
- 13.2 Free-Fall Acceleration and the Gravitational Force
- 13.3 Analysis Model: Particle in a Field (Gravitational)
- 13.4 Kepler's Laws and the Motion of Planets
- 13.5 Gravitational Potential Energy
- 13.6 Energy Considerations in Planetary and Satellite Motion