

Physics 299 – University Physics I Recitation

Fall 2005, Class # 9744 (1 credit hour)

Instructor: Team-taught by Physics Faculty

Room: South Engineering Room 221

Meeting Times: Thursday, 10:00-10:50 a.m.

General Information

Description: While Physics 251 emphasizes conceptual understanding and quantitative problems in classical mechanics, this recitation will emphasize more in-depth problem solving and applications in parallel with Physics 251. The resultant improved theoretical comprehension should enhance student's conceptual understanding and strengthen preparation for upper-level physics. This one-credit-hour course is required for physics majors and is optional for students concurrently enrolled in Physics 251.

Text: Halliday, Resnick, Walker, *Fundamentals of Physics*, 7th Ed., (Wiley, 2005).

Office Hours: The faculty member responsible for the weekly recitation will post their office hours on Blackboard.

Homework

Homework will be assigned and graded by Physics faculty and will be posted on Blackboard. Effort invested in working problems plays an important part in learning physics. The homework will complement the LON-CAPA problems assigned in Physics 251. **Group study is encouraged.**

Grades: Your grade will be based on your average for all assigned homework. A total average of 89.5% or more ensures an A, 79.5 to 89.4% ensures a B, 69.5 to 79.4% ensures a C, 59.5 to 69.4% ensures a D, and less than 59.5 points an F.

Topics: The following material will be covered during the semester.

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| Chapter 1 | Measurements |
| Chapter 2 | Kinematics in 1-Dim |
| Chapter 3 | Vectors |
| Chapter 4 | 3-Dim, Kinematics |
| Chapter 5 | Newton's 2nd Law |
| Chapter 6 | Frictional Forces |
| Chapter 7 | Kinetic Energy |
| Chapter 8 | Potential Energy |
| Chapter 9 | Momentum |
| Chapter 10 | Conservation of Momentum |
| Chapter 11 | Rotational Kinematics |
| Chapter 12 | Torque and Angular Momentum |
| Chapter 13 | Equilibrium |
| Chapter 14 | Gravitation |
| Chapter 15 | Fluids |
| Chapter 16 | Oscillations |
| Chapter 17 | Waves |
| Chapter 18 | Sound |
| Chapter 19 | 1st Law of Thermodynamics |
| Chapter 20 | Kinetic Theory of Gases |

Cheating and Academic Responsibility

All work in this course must be completed in a manner consistent with NDSU University Senate Policy, section 335: Code of Academic Responsibility and Conduct (<http://www.ndsu.nodak.edu/policy/335.htm>).

Students with disabilities or special needs

Students with disabilities or other special needs, who need special accommodations in this course, are invited to share these concerns or requests with the instructor as soon as possible.