

Course Evaluation for the Physics Department

Please take a moment to complete this questionnaire. The information you provide will help the Physics Department evaluate the various components of the course. Your name will be used to match this evaluation with the other questionnaires you have completed this quarter. Your answers and comments will be kept confidential. Completing this questionnaire is voluntary and will not affect your grade in this or any other course. Your cooperation is appreciated.

INSTRUCTIONS FOR COMPLETING THE ANSWER SHEET

- Use a #2 or H/HB pencil to fill out the answer sheet.
- Fill in the bubbles completely.
- Erase completely any marks you made by mistake.
- See marking instructions on side 2 of the answer sheet if you have other questions.

- Please Fill in your:
 - Name
 - Identification Number
 - Course (i.e., 1251) in blanks G - J
 - Laboratory Section (i.e., if you are in 1251.3 lab section 21, enter 21) in blanks L - M.
 - Sex, Grades, Status, and Class

OVERVIEW FOR THIS QUESTIONNAIRE

- Do the Physics Diagnostic Test (Force Concept Inventory or Test for Understanding Graphing -- Kinematics) first in spaces 1 through 49. *You will not use all of these spaces.*
- When you have finished the test, go to **space 50** on the answer sheet and answer the following questions in each section:

SECTION I: YOUR BELIEFS:

For the following fifteen statements (50-64), choose the code that best describes your opinion. Use the following codes to answer these questions.

A = Strongly Disagree B = Disagree C = Neutral D = Agree E = Strongly Agree

*Answer the questions by selecting the code that best expresses your feelings. Work quickly. Don't over-elaborate the meaning of each statement. They are meant to be taken as straightforward and simple. If you do not understand a statement, leave it blank. If you understand, but have no strong opinion one way or other, mark C. If an item combines two statements and you disagree with **either one**, choose A or B.*

50. "Problem-solving" in physics basically means matching problems with facts or equations and then substituting values to get a number.
51. No matter how hard I try, some people just don't like me.

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52. Physical laws have little relation to what I experience in the real world.
53. Only a few specially qualified people are capable of really understanding physics.
54. For the most part, the grade I receive in this course will be influenced by accidental happenings.
55. To understand physics, I think about my personal experiences and relate them to the topic being analyzed.
56. The most crucial thing in solving a physics problem is finding the right equation to use.
57. There is rarely such a thing as an unfair test if I am well prepared.
58. Physics is related to the real world and it sometimes helps to think about the connections, but it is rarely essential for what I have to do in this course.
59. Learning physics helps me to understand situations in my everyday life.
60. There is a direct connection between how hard I study and the grades I get.
61. When I solve most exam or homework problems, I explicitly think about the concepts that underlie the problems.
62. "Understanding" physics basically means being able to recall something you've read or been shown.
63. To be able to use an equation in a problem (particularly a problem that I haven't seen before), I need to know more than what each term in the equation represents.
64. Many times exam questions tend to be so unrelated to course work that studying is really useless.

SECTION II: LECTURE:

Please rate the extent you agree or disagree with each statement about the lectures by marking the appropriate letter on your answer sheet.

A = Strongly Disagree B = Disagree C = Neutral D = Agree E = Strongly Agree
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65. The lectures were a waste of time.
66. The lectures helped to clarify ideas from the text.
67. The instructor covered too little material in the course.
68. The main points of the lecture were clearly stated and emphasized.
69. More lecture time should be spent illustrating good problem solutions.
70. The lectures required my active intellectual involvement.

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SECTION III: DISCUSSION SECTION

Please rate the extent you agree or disagree with each statement about the discussion sections by marking the appropriate letter on your answer sheet.

A = Strongly Disagree	B = Disagree	C = Neutral	D = Agree	E = Strongly Agree
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71. Solving problems with my group helped me to understand the course material.
72. The discussion sections were a waste of time.
73. When my group got together, we knew just what we were supposed to do.
74. My group worked well together on the assigned problems.
75. The discussion problems provided useful guidance for solving problems on the individual exams.
76. My TA gave us useful help when we were stuck.

SECTION IV: LABORATORY SECTION

Please rate the extent you agree or disagree with each general statement about the laboratory sessions by marking the appropriate letter on your answer sheet.

A = Strongly Disagree	B = Disagree	C = Neutral	D = Agree	E = Strongly Agree
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77. The laboratory problems provided useful guidance for solving problems on the individual exams.
78. The laboratory problems helped me to understand the concepts covered in class.
79. The laboratory sessions were a waste of time.
80. The written instructions for the laboratory problems were clear enough for our group to solve the problems.
81. My TA gave us useful help when we were stuck.
82. Overall, the laboratory problems were interesting.

*Please indicate **how often** the following events occurred during laboratory sessions by marking the appropriate letter on your answer sheet.*

A = Hardly ever	B = Not very often	C = Sometimes	D = Quite often	E = Almost always
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83. Our group discussed equipment difficulties.
84. Our group discussed misunderstandings about the physics.
85. One person in our group did most of the data analysis.
86. I felt I was contributing to our group's solution to the lab problem.
87. Our group worked efficiently.
88. I felt the other members of my group were contributing to the solution of the lab problem.
89. Our group did most tasks together.
90. Our group divided most of the tasks.
91. Our group communicated well with each other, so each member understood what the heck was going on.

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Please rate the extent you agree or disagree with each statement about using **VideoTool** in the labs by marking the appropriate letter on your answer sheet.

A = Strongly Disagree	B = Disagree	C = Neutral	D = Agree	E = Strongly Agree
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92. I consider myself computer literate.
93. Although it took time to learn VideoTool, it was time well spent.
94. I felt that comparing our prediction equation to our collected data helped me understand the relationship between our graphs and the observed motion.
95. VideoTool taught me the importance of selecting an appropriate origin and/or axis and meaningful units in solving problems.
96. Using VideoTool helped me understand the equations I used in class.
97. Using VideoTool helped my understanding of derivatives.
98. I found the printed graphs and equations useful in writing my lab reports.
99. I was careful to select the same place on the moving object each time I selected a data point.
100. If necessary, I would enter unrealistic values into my fit equations to get the line through most of my points.
101. The position fit helped me to predict my velocity and acceleration fits.
102. The instructions given in the VideoTool Guidebox were generally helpful.
103. I am looking forward to using VideoTool in my next physics course.

Please indicate **how often** the following events occurred during laboratory sessions by marking the appropriate letter on your answer sheet.

A = Almost never	B = Not very often	C = Sometimes	D = Quite often	E = Almost always
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104. I used the computer for my group.
105. We used the lab manual while working in the lab room.
106. We would play the movie to observe the motion before we started to take data.
107. We needed to retake a movie after we had started using VideoTool.
108. There were significant differences between our predicted graphs and our data.
109. We did not have the necessary equation in VideoTool.
110. We estimated the uncertainties in our measurements.
111. We rushed through VideoTool because we ran out of time.
112. We guessed (or ignored) the coefficients for the prediction equation we entered in VideoTool.
113. We used the "Rotate" feature to change the axis in VideoTool.
114. We aborted or exited VideoTool and started again.

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SECTION V: OVERALL EVALUATION

115. Mark the **one** statement below which best describes your typical use of the *Solutions Manual*.

- A. I did not usually read or use the solutions manual.
- B. I usually used it to get started doing a problem.
- C. I usually used it to get help when stuck doing a problem.
- D. I usually used it to check my method or answer after doing the problem.
- E. I usually studied the solutions in the manual instead of trying to solve the homework problems.

116. Mark the **one** statement below which best describes your use of the *Competent Problem Solver* booklet.

- A. I did not read or use the booklet .
- B. I used it infrequently.
- C. I used it mostly at the beginning of the course.
- D. I used it mostly at the end of the course.
- E. I used it fairly consistently throughout the course.

Rank order the following components of the course from the **most** useful (1) to the **least** useful (8) in helping you learn physics. Mark your rank next to each course component on the answer sheet. Only use each number (1 - 8) once.

117. Homework

118. Laboratory

119. Lectures

120. Lecturer Office Hours

121. Quizzes and Exams

122. Discussion Sessions (Recitation)

123. TA Office Hours

124. Textbook

125. Mark the **one** statement below which best describes the course structure you think would help you learn physics the best.

- A. I would learn physics better if one lecture were eliminated (i.e., only two lectures a week), and there were two discussion (recitation) sessions each week.
- B. I would learn physics better if one lecture were eliminated (i.e., only two lectures a week), and the lab time was increased from two to three hours each week.
- C. I would learn physics better if the lab were eliminated and there were two more lectures each week.
- D. I would learn physics better if the discussion (recitation) session were eliminated and there was one more lecture each week.
- E. I learn best with the present structure of three lectures, one discussion (recitation), and one two-hour lab each week.

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SECTION VI: OVERALL ATTENDANCE

126. The percentage of time I attended lecture was about:
- A. 0 - 20%
 - B. 20 - 40 %
 - C. 40 - 60%
 - D. 60 - 80%
 - E. over 80%
127. How often did you go to your professor's office hours for help:
- A. I never went.
 - B. 1 - 2 times
 - C. 3 - 4 times
 - D. 5 - 6 times
 - E. 7 - 9 times
 - F. more than 9 times
128. How many laboratory sessions did you **miss** this quarter:
- A. None
 - B. 1 sessions
 - C. 2 sessions
 - D. 3 sessions
 - E. 4 sessions
 - F. more than 4 sessions
129. How many discussion sessions did you **miss** this quarter:
- A. None
 - B. 1 sessions
 - C. 2 sessions
 - D. 3 sessions
 - E. 4 sessions
 - F. more than 4 sessions
130. How often did you go to the TA's office hours (in room 140) for help?
- A. I never went.
 - B. 1 - 2 times
 - C. 3 - 4 times
 - D. 5 - 6 times
 - E. 7 - 9 times
 - F. more than 9 times
131. The percentage of the assigned textbook reading I did was about:
- A. 0 - 20%
 - B. 20 - 40 %
 - C. 40 - 60%
 - D. 60 - 80%
 - E. over 80%
132. The percentage of the assigned homework problems I did was:
- A. 0 - 20%
 - B. 20 - 40 %
 - C. 40 - 60%
 - D. 60 - 80%
 - E. over 80%

Thank You!