| Add to question statistics |  |  | More info |  |  |  | Mean | SD | Median | Mode |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Title | N |  | equ | c |  |  |  |  |  |  |
|  |  | - 1 | 12 | 3 | 4 | 5 |  |  |  |  |
| F1-01. Background - early survey | 22 | 01 | 11 | 3 | 5 | 12 | 4.18 | 1.14 | 5.0 | 5 |
| F1-02. expected grade | 22 | 00 | 00 | 6 | 8 | 8 | 4.09 | 0.81 | 4.0 | 4,5 |
| F1-02. tutorial attandenace | 22 | 04 | 41 | 2 | 7 | 8 | 3.64 | 1.50 | 4.0 | 5 |
| F2-01. review of past courses | 22 | 00 | 02 | 8 | 4 | 8 | 3.82 | 1.05 | 4.0 | 3,5 |
| F2-02. amount | 22 | 00 | 01 | 4 | 11 | 6 | 4.00 | 0.82 | 4.0 | 4 |
| F2-03. interesting material | 22 | 00 | 02 | 5 | 3 | 12 | 4.14 | 1.08 | 5.0 | 5 |
| F2-04. text | 22 | 00 | 05 | 4 | 8 | 5 | 3.59 | 1.10 | 4.0 | 4 |
| F2-05. supplementary texts | 22 | 00 | 07 | 12 | 3 | 0 | 2.82 | 0.66 | 3.0 | 3 |
| F2-06. library resources | 20 | 24 | 44 | 8 | 2 | 2 | 2.70 | 1.22 | 3.0 | 3 |
| F2-07. assignment problem interest | 22 | 00 | 02 | 9 | 8 | 3 | 3.55 | 0.86 | 3.5 | 3 |
| F2-08. assignment problem usefulness | 22 | 00 | 00 | 2 | 9 | 11 | 4.41 | 0.67 | 4.5 | 5 |
| F2-09. assignment grading | 22 | 00 | 00 | 0 | 8 | 14 | 4.64 | 0.49 | 5.0 | 5 |
| F2-10. term test length | 22 | 00 | 00 | 0 | 7 | 15 | 4.68 | 0.48 | 5.0 | 5 |
| F2-10a. term test appropriateness | 22 | 01 | 10 | 4 | 10 | 7 | 4.00 | 0.98 | 4.0 | 4 |
| F2-11. term test grading | 18 | 40 | 00 | 5 | 7 | 6 | 4.06 | 0.80 | 4.0 | 4 |
| F2-12. assignment number | 22 | 01 | 17 | 9 | 3 | 2 | 2.91 | 1.02 | 3.0 | 3 |
| F2-13. tutorial usefulness | 22 | 02 | 25 | 5 | 8 | 2 | 3.14 | 1.17 | 3.0 | 4 |
| F2-14. tutorial number | 22 | 00 | 01 | 1 | 9 | 11 | 4.36 | 0.79 | 4.5 | 5 |
| F2-15. computing resources | 21 | 12 | 23 | 8 | 5 | 3 | 3.19 | 1.17 | 3.0 | 3 |
| F3-01. Laboratories interest | 22 | 00 | 02 | 3 | 8 | 9 | 4.09 | 0.97 | 4.0 | 5 |
| F3-02. laboratories usefulness | 22 | 01 | 14 | 6 | 7 | 4 | 3.41 | 1.14 | 3.5 | 4 |
| F3-03. lab report grading | 22 | 00 | 00 | 1 | 14 | 7 | 4.27 | 0.55 | 4.0 | 4 |
| F3-04. lab report comments | 22 | 00 | 00 | 7 | 11 | 4 | 3.86 | 0.71 | 4.0 | 4 |
| F3-05. lab demonstrator rating | 22 | 00 | 00 | 1 | 4 | 17 | 4.73 | 0.55 | 5.0 | 5 |
| F3-05b. lab demonstrator effectiveness | 22 | 00 | 00 | 0 | 11 | 11 | 4.50 | 0.51 | 4.5 | 4,5 |
| F4-01. new material introduction speed | 22 | 00 | 01 | 8 | 12 | 1 | 3.59 | 0.67 | 4.0 | 4 |
| F4-02. key concepts | 22 | 00 | 03 | 8 | 10 | 1 | 3.41 | 0.80 | 3.5 | 4 |
| F4-03. encourage questions | 22 | 00 | 00 | 0 | 3 | 19 | 4.86 | 0.35 | 5.0 | 5 |
| F4-04. related materials | 22 | 00 | 03 | 6 | 9 | 4 | 3.64 | 0.95 | 4.0 | 4 |
| F4-05. presentation of material | 22 | 02 | 22 | 10 | 8 | 0 | 3.09 | 0.92 | 3.0 | 3 |
| F4-06. instructor availablity | 22 | 00 | 00 | 7 | 4 | 11 | 4.18 | 0.91 | 4.5 | 5 |
| F4-07. instructor helpfullness | 22 | 00 | 00 | 7 | 4 | 11 | 4.18 | 0.91 | 4.5 | 5 |
| F4-07. stimulation of interest | 22 | 02 | 21 | 5 | 10 | 4 | 3.59 | 1.14 | 4.0 | 4 |
| F4-09. Course rating | 22 | 00 | 01 | 5 | 10 | 6 | 3.95 | 0.84 | 4.0 | 4 |
| F4-10. Instructor rating | 22 | 00 | 02 | 3 | 14 | 3 | 3.82 | 0.80 | 4.0 | 4 |

## More Detailed Statistics Summary: early-course-survey

## Question: F1-01. Background - early survey

This is an early survey for this physics course. Please let me know if there are any problems. I have put this together from two different survey sources, one mandated by CUPE for sessional instructors, and one used by the Department of Physics for Physics courses, so there might be some repitition of some types of questions.

I have assigned "grades" to each of the survey answers in order to aid in tracking responses. Any "score" you might receive for completing the survey IS NOT recorded as part of your course grades. This survey is anonymous and the results are returned to the instructor only in aggregate form, along with all free response comments.

Please answer each survey question/statement with a response from one to five, with higher numbers representing agreement. I have tried to structure each statement so that "good" responses coorespond with large numbers, so some of the statements may be worded a little strangely. Any questions that are not relevant to your particular situation can just be left blank.

I think that you can hit the "save answer" button after each question and stop at any time to return to the survey later. If you hit the "finish" button, you will not be able to complete any survey questions that you did not answer, so make sure you are completely finished before hitting the "finish" button! However, none of your answers are submitted to me until the "finish" button is pressed, so make sure that you do submit all the answers before the date when the survey will be closed.

The first few questions deal with background information:
What percentage of the lectures did you attend?

1. $0-20 \%$ 2. $20-40 \%$ 3. $40-60 \%$ 4. $60-80 \%$ 5. $80-100 \%$

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.18 | 1.14 | 5.0 | 5 | 0 | 1 | 1 | 3 | 5 | 12 |
|  |  |  |  |  | $0.0 \%$ | $4.5 \%$ | $4.5 \%$ | $13.6 \%$ | $22.7 \%$ | $54.5 \%$ |

Question: F1-02. expected grade
What final grade do you expect to achieve in this course?

1. F 2. D 3. C 4. B 5. A

| $\mathbf{N}$ | Mean | SD | Median | Mode | - | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.09 | 0.81 | 4.0 | 4,5 | 0 | 0 | 0 | 6 | 8 | 8 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $27.3 \%$ | $36.4 \%$ | $36.4 \%$ |

Question: F1-02. tutorial attandenace
What percentage of the tutorials did you attend?

1. $0-20 \%$ 2. $20-40 \%$ 3. $40-60 \%$ 4. $60-80 \%$ 5. $80-100 \%$

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 3.64 | 1.50 | 4.0 | 5 | 0 | 4 | 1 | 2 | 7 | 8 |
|  |  |  |  |  | $0.0 \%$ | $18.2 \%$ | $4.5 \%$ | $9.1 \%$ | $31.8 \%$ | $36.4 \%$ |

## Question: F2-01. review of past courses

The next few questions deal with course content:
An appropriate amount of time was spent on review of material from previous courses.
$1=$ Disagree Strongly ...... $5=$ Agree Strongly

1. $\qquad$ 2.
2. $\qquad$ 4. $\qquad$ 5. . . . . . .

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 3.82 | 1.05 | 4.0 | 3,5 | 0 | 0 | 2 | 8 | 4 | 8 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $9.1 \%$ | $36.4 \%$ | $18.2 \%$ | $36.4 \%$ |

## Question: F2-02. amount

The amount of material covered during the course was appropriate.
$1=$ Disagree Strongly $\ldots . . .5=$ Agree Strongly
1.
2.
3.
4.
5. . . . . . .

| $\mathbf{N}$ | Mean | SD | Median | Mode | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.00 | 0.82 | 4.0 | 4 | 0 | 0 | 1 | 4 | 11 | 6 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $4.5 \%$ | $18.2 \%$ | $50.0 \%$ | $27.3 \%$ |

## Question: F2-03. interesting material

The class material was very interesting.
$1=$ Disagree Strongly ...... $5=$ Agree Strongly
1.
2. ...... 3
3. ...... 4
4. . . . . . 5. . . . . .

| $\mathbf{N}$ | Mean | SD | Median | Mode | $\mathbf{1}$ | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | 5 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.14 | 1.08 | 5.0 | 5 | 0 | 0 | 2 | 5 | 3 | 12 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $9.1 \%$ | $22.7 \%$ | $13.6 \%$ | $54.5 \%$ |

## Question: F2-04. text

The text was very useful in helping me understand the course material.
1 = Disagree Strongly $\qquad$ $5=$ Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 3.59 | 1.10 | 4.0 | 4 | 0 | 0 | 5 | 4 | 8 | 5 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $22.7 \%$ | $18.2 \%$ | $36.4 \%$ | $22.7 \%$ |

Question: F2-05. supplementary texts

The supplementary texts were very useful in helping me understand the course material.
1 = Disagree Strongly ...... 5 = Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode | - | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 2.82 | 0.66 | 3.0 | 3 | 0 | 0 | 7 | 12 | 3 | 0 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $31.8 \%$ | $54.5 \%$ | $13.6 \%$ | $0.0 \%$ |

Question: F2-06. library resources
The library resources were very useful in helping me understand the course material.
1 = Disagree Strongly ...... 5 = Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 2.70 | 1.22 | 3.0 | 3 | 2 | 4 | 4 | 8 | 2 | 2 |
|  |  |  |  |  | $9.1 \%$ | $18.2 \%$ | $18.2 \%$ | $36.4 \%$ | $9.1 \%$ | $9.1 \%$ |

Question: F2-07. assignment problem interest
The assignment problems were very interesting.
1 = Disagree Strongly ...... 5 = Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 22 | 3.55 | 0.86 | 3.5 | 3 | 0 | 0 | 2 | 9 | 8 | 3 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $9.1 \%$ | $40.9 \%$ | $36.4 \%$ | $13.6 \%$ |

Question: F2-08. assignment problem usefulness
The assignment problems were very useful in helping me understand the course material.
1 = Disagree Strongly ...... 5 = Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.41 | 0.67 | 4.5 | 5 | 0 | 0 | 0 | 2 | 9 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $9.1 \%$ | $40.9 \%$ |

## Question: F2-09. assignment grading

The assignment problems were graded fairly.
1 = Disagree Strongly ...... 5 = Agree Strongly
$\qquad$

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.64 | 0.49 | 5.0 | 5 | 0 | 0 | 0 | 0 | 8 | 14 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $36.4 \%$ | $63.6 \%$ |

Question: F2-10. term test length
The time allowed for term tests was appropriate.
$1=$ Disagree Strongly ...... 5 = Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.68 | 0.48 | 5.0 | 5 | 0 | 0 | 0 | 0 | 7 | 15 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $31.8 \%$ | $68.2 \%$ |

Question: F2-10a. term test appropriateness
The term tests provided an accurate evaluation of my understanding of the course material.

1 = Disagree Strongly $\qquad$ 5 = Agree Strongly

1. $\qquad$ 2.
2. $\qquad$ 4.
3. . . . . .

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.00 | 0.98 | 4.0 | 4 | 0 | 1 | 0 | 4 | 10 | 7 |
|  |  |  |  |  | $0.0 \%$ | $4.5 \%$ | $0.0 \%$ | $18.2 \%$ | $45.5 \%$ | $31.8 \%$ |

Question: F2-11. term test grading
The term tests were graded fairly.

1. = Disagree Strongly ...... 5 = Agree Strongly
2. 
3. 
4. 

. . . . . .
4. . . . . . 5 $\qquad$

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 | 4.06 | 0.80 | 4.0 | 4 | 4 | 0 | 0 | 5 | 7 | 6 |
|  |  |  |  |  | $18.2 \%$ | $0.0 \%$ | $0.0 \%$ | $22.7 \%$ | $31.8 \%$ | $27.3 \%$ |

Question: F2-12. assignment number
The number of assignments was appropriate.
1 = Disagree Strongly ...... 5 = Agree Strongly
$\qquad$

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 2.91 | 1.02 | 3.0 | 3 | 0 | 1 | 7 | 9 | 3 | 2 |
|  |  |  |  |  | $0.0 \%$ | $4.5 \%$ | $31.8 \%$ | $40.9 \%$ | $13.6 \%$ | $9.1 \%$ |

## Question: F2-13. tutorial usefulness

The tutorials were very useful in helping me understand the course material.
1 = Disagree Strongly $5=$ Agree Strongly
1.
3.
4
5. . . . . .

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 3.14 | 1.17 | 3.0 | 4 | 0 | 2 | 5 | 5 | 8 | 2 |
|  |  |  |  |  | $0.0 \%$ | $9.1 \%$ | $22.7 \%$ | $22.7 \%$ | $36.4 \%$ | $9.1 \%$ |

Question: F2-14. tutorial number
The number of tutorials was appropriate.
1 = Disagree Strongly $\qquad$ 5 = Agree Strongly
1.
3.
4. $\qquad$

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{5}$ | $\mathbf{5}$ |  |  |  |  |  |  |  |  |
| 22 | 4.36 | 0.79 | 4.5 | 5 | 0 | 0 | 1 | 1 | 9 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $4.5 \%$ | $4.5 \%$ | $40.9 \%$ |
|  |  |  |  |  | $50.0 \%$ |  |  |  |  |

Question: F2-15. computing resources
The computing resources available were adequate.
1 = Disagree Strongly ...... $5=$ Agree Strongly
1.
3.
4. $\qquad$

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21 | 3.19 | 1.17 | 3.0 | 3 | 1 | 2 | 3 | 8 | 5 | 3 |
|  |  |  |  |  | $4.5 \%$ | $9.1 \%$ | $13.6 \%$ | $36.4 \%$ | $22.7 \%$ | $13.6 \%$ |

Question: F3-01. Laboratories interest
The next few questions deal with laboratories:
The laboratories for this course were very interesting.
$1=$ Disagree Strongly ...... $5=$ Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.09 | 0.97 | 4.0 | 5 | 0 | 0 | 2 | 3 | 8 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $9.1 \%$ | $13.6 \%$ | $36.4 \%$ |
|  |  |  |  |  |  |  | $40.9 \%$ |  |  |

## Question: F3-02. Iaboratories usefulness

The laboratories were very useful in helping me understand the course material.
1 = Disagree Strongly ...... $5=$ Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 3.41 | 1.14 | 3.5 | 4 | 0 | 1 | 4 | 6 | 7 | 4 |
|  |  |  |  |  | $0.0 \%$ | $4.5 \%$ | $18.2 \%$ | $27.3 \%$ | $31.8 \%$ | $18.2 \%$ |

Question: F3-03. lab report grading
The lab reports were graded fairly.
$1=$ Disagree Strongly ...... $5=$ Agree Strongly
1.
2.
3. $\qquad$ 4. ...... 5 $\qquad$

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.27 | 0.55 | 4.0 | 4 | 0 | 0 | 0 | 1 | 14 | 7 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $4.5 \%$ | $63.6 \%$ | $31.8 \%$ |

Question: F3-04. lab report comments
Comments on lab reports were very useful in helping me understand the course material.
1 = Disagree Strongly $\qquad$ $5=$ Agree Strongly

1. ...... 2.
2. 
3. $\qquad$ 4.
4. . . . . . .

| $\mathbf{N}$ | Mean | SD | Median | Mode | - | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 3.86 | 0.71 | 4.0 | 4 | 0 | 0 | 0 | 7 | 11 | 4 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $31.8 \%$ | $50.0 \%$ | $18.2 \%$ |

Question: F3-05. lab demonstrator rating
My overall rating of the lab demonstrator is:
1 = Poor $\qquad$ $5=$ Excellent

1. ...... 2. $\qquad$
$\qquad$
2. 
3. . . . . . .

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.73 | 0.55 | 5.0 | 5 | 0 | 0 | 0 | 1 | 4 | 17 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $4.5 \%$ | $18.2 \%$ | $77.3 \%$ |

Question: F3-05b. Iab demonstrator effectiveness
The lab deomonstrators were very effective.
1 = Disagree Strongly ...... 5 = Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.50 | 0.51 | 4.5 | 4,5 | 0 | 0 | 0 | 0 | 11 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $50.0 \%$ |
|  |  |  |  |  | $50.0 \%$ |  |  |  |  |

## Question: F4-01. new material introduction speed

The next few questions deal with the instructor and in-class presentation:
The speed of introduction of material was appropriate.
1 = Disagree Strongly ...... 5 = Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 3.59 | 0.67 | 4.0 | 4 | 0 | 0 | 1 | 8 | 12 | 1 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $4.5 \%$ | $36.4 \%$ | $54.5 \%$ | $4.5 \%$ |

Question: F4-02. key concepts
Key concepts were explained very well.
$1=$ Disagree Strongly ...... $5=$ Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | 5 |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 22 | 3.41 | 0.80 | 3.5 | 4 | 0 | 0 | 3 | 8 | 10 | 1 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $13.6 \%$ | $36.4 \%$ | $45.5 \%$ | $4.5 \%$ |

Question: F4-03. encourage questions
The instructor encouraged the asking of questions in class.
$1=$ Disagree Strongly ...... $5=$ Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| N | Mean | SD | Median | Mode | - | 1 | 2 | 3 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.86 | 0.35 | 5.0 | 5 | 0 | 0 | 0 | 0 | 3 | 19 |
|  |  |  |  |  | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 13.6\% | 86.4\% |

Question: F4-04. related materials

The instructor related the material to other areas of physics.
1 = Disagree Strongly ...... $5=$ Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 3.64 | 0.95 | 4.0 | 4 | 0 | 0 | 3 | 6 | 9 | 4 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $13.6 \%$ | $27.3 \%$ | $40.9 \%$ | $18.2 \%$ |

Question: F4-05. presentation of material
The in-class presentation of material was done very well.
1 = Disagree Strongly ...... 5 = Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :---: | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 3.09 | 0.92 | 3.0 | 3 | 0 | 2 | 2 | 10 | 8 | 0 |
|  |  |  |  |  | $0.0 \%$ | $9.1 \%$ | $9.1 \%$ | $45.5 \%$ | $36.4 \%$ | $0.0 \%$ |

## Question: F4-06. instructor availablity

The instructor was very available to students outside class.
$1=$ Disagree Strongly ...... $5=$ Agree Strongly
1.
2.
. ...... 3
. . . . . . 4
4. ...... 5 $\qquad$

| $\mathbf{N}$ | Mean | SD | Median | Mode | - | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.18 | 0.91 | 4.5 | 5 | 0 | 0 | 0 | 7 | 4 | 11 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $31.8 \%$ | $18.2 \%$ | $50.0 \%$ |

Question: F4-07. instructor helpfullness
When available outside of class, the instructor was very helpful.
1 = Disagree Strongly $\qquad$ 5 = Agree Strongly
1.
2.
2. ...... 3
3. ...... 4
4. ...... 5 $\qquad$

| $\mathbf{N}$ | Mean | SD | Median | Mode | - | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 4.18 | 0.91 | 4.5 | 5 | 0 | 0 | 0 | 7 | 4 | 11 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $31.8 \%$ | $18.2 \%$ | $50.0 \%$ |

Question: F4-07. stimulation of interest
The instructor greatly stimulated my interest in the course material.
1 = Disagree Strongly ...... $5=$ Agree Strongly

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 22 | 3.59 | 1.14 | 4.0 | 4 | 0 | 2 | 1 | 5 | 10 | 4 |
|  |  |  |  |  | $0.0 \%$ | $9.1 \%$ | $4.5 \%$ | $22.7 \%$ | $45.5 \%$ | $18.2 \%$ |

Question: F4-09. Course rating
My overall rating of the course is:
$1=$ Poor $\ldots . . .5=$ Excellent

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode | - | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 3.95 | 0.84 | 4.0 | 4 | 0 | 0 | 1 | 5 | 10 | 6 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $4.5 \%$ | $22.7 \%$ | $45.5 \%$ | $27.3 \%$ |

Question: F4-10. Instructor rating
My overall rating of the instructor of the course is:
$1=$ Poor ...... 5 = Excellent

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

| $\mathbf{N}$ | Mean | SD | Median | Mode |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 3.82 | 0.80 | 4.0 | 4 | 0 | 0 | 2 | 3 | 14 | 3 |
|  |  |  |  |  | $0.0 \%$ | $0.0 \%$ | $9.1 \%$ | $13.6 \%$ | $63.6 \%$ | $13.6 \%$ |

## Detail Summary: early-course-survey

Question: F2-z. Further comments about course content/resources

What further comments do you have about the course content and/or available resources?

## Responses

## User ID Response

2 Perhaps a list of suggested reading?
3 I think that the assignments were good but they were too long and people were spending more time on them than they should have. Also we shouldnt have to do full reports all the time on our labs. We end up spending yet again more time than is necessary to complete them on time. I think most labs should be partial reports with the few major or really important labs being full write ups.
4 The text wasn't very interesting, even thought it had a lot of information.
5 Course content and the amount of available resources were satisfactory.
6 complicated but all over good textbook
7 I believe this course has been taught quite well, it just seems to be a course that is very involved by nature. I found that having to do work periodically from assignments helped me stay up to date in the course. Unfortunately, it also has put me quite far behind in some of my other courses.
8 So far I haven't used the supplementary Crowell Text much, but it seems like an interesting conceptual addition to the course material. Eisberg and Resnick contains very dry language, but the presentation of the mathematics is very useful.
$9 \quad$ There weren't really any computing resourses needed.
11 The lab reports take so long to write up. It would be nice to have half-write ups...since I don't learn a whole lot from the writeup.
12 The principle text is very good and was extremely helpful. The supplementry text (crowell) was not so good
13 A set of lecture notes instead of refering to the text and going trough examples would be better than asking about people's problems in class.
14 No comments
15 I think that the course should have past questions from past tests and exams in reserve.
16 there were alot of assignments for this course, however im sure they were appropriate for the fast paces kinda course that this is. the text $i$ find to be very.. "you need to know the stuff before you learn it" kinda thing. it expects you to know a heck of alot already. that can be quite aggrivating. everything else seems to be fine. the marking scheme is awesome (i gave ya a 5) keep er up!
17 I found the textbook quite difficult to use in helping me through assignments. And I found it frustrating to be told that the text was beyond our level (although that did help to explain why I didn't understand some of the things the text said were 'obvious').

18 course content great. The available resources were useful

I found that there was always some where i could go to look up about what we were learning. The most useful thing had to be the text book though.

## Detail Summary: early-course-survey

## Question: F3-05a. lab demonstrators names

What was(were) the name(s) of the lab demonstrator(s)?


Responses

| User ID | Response |
| :--- | :--- |
| 1 | Dave Marshall |
| 2 | Dave Marshall |
| 3 | Dave Marshall |
| 4 | Dave Marshall |
| 5 | Dave Marshall |
| 6 | Dave Marshall, with a little help from that grad student guy |
| 7 | Dave Marshall |
| 8 | Dave Marshall |
| 9 | Dave |
| 10 | Dave Marshall |
| 11 | Dave Marshall |
| 12 | Dave |
| 13 | David Marshall and Taylor (spmething i can't recall .. he helped |
| 14 | with the light lab) |
| 15 | David |
| 16 | Dave Marshall |
| 17 | Dave marshall |
| 18 | Dave Marshall |
| 19 | Dave Marshall |
| 20 | Dave Marshall |
| 21 | Dave Marshall |
| 22 | Dave Marshall |

## Detail Summary: early-course-survey

## Question: F3-z. Further comments Laboratories

What further comments do you have about the Laboratories?
$\square$

## Responses

## User ID Response

2 Many Thanks to Dave Marshall for patience, assistance, and understanding.

3 See comment above.
4 It would have been helpful if more of a connection was made between material covered in the labs and in class.

5 Laboratory equipment were satisfactory and the experiments were straight-forward and easy to understand.
6 pretty good
7 Dave was very helpful during and after the lab in getting a good understand of what was required and what is involved with the theory behind the lab.
8 It might be interesting to do an experiment involving the photoelctric effect if at all possible.
$9 \quad$ None
11 The lab writeups took much to long to complete if you wanted to get a good mark.
12 Good labs, but maybe too basic since they didn't really cover quantum mechanics besides the basic quantization of charge and atomic energy. More modern equipment that has computerized data collection would be better.
13 They were very interesting. Especailly knowing the backgrounds and that the method used is the method that made those scientists famous.
no comment
Labs need to be more active by encouraging group discussions within a lab group taking the same lab.

16 more comments on how to improve to get an A on a lab would be nice. thats also my responsibility as well though

18 The Laboratories were very interesting but I spend a lot of my time writing lab reports on things that I did not learn much. e.g. full formal write ups with error analysis which consumed the majority of the my time. It would be better if we had one or two big labs on which we would be expected to submit a full write up and the rest just data analysis and error analysis with conclusion and evaluation; Dave is a great guy , very helpful and always there for students!
none
The labs were very good, but didn't have much of an impact on my understanding of the course.
21 I found the labs very interesting but it would have been better if we weren't required to do 4 full lab reports. It would be nice if it was split so that we did maybe 3 full labs and then 2 half labs. THis way we have more time to complete the assignments that are due every week.
$\qquad$

## Detail Summary: early-course-survey

Question: F4-z. Further comments about instructor and in-class presentation

What further comments do you have about the instructor and in-class presentation?

## Responses

## User ID Response

3 I think that topics should have been explained more.
4 I didn't have time to do the physics readings until thursday afternoon, so I didn't get much out of the Thursday morning lecture. It would have been nice if the lecture didn't completely depend on the student having completed the readings already.

5 Lectures were more like "tutorial" classes, compared to other instructors flying through the material without answering questions lingering from previous sections.
6 While the concepts were covered, the lack of tutorials, as in physics 100 left some students in the dark about certain equations as they were not brought up and used in even 1 exapmle in class.
7 Johann has made an effort to determine what we've liked and haven't liked about the class, which I think is a good way of finding out what needs to be changed in the coures.

It is great to have so much time to ask questions in lecture, but it would be good to have more focus on ideas the instructor thinks are key to a continuation in the field of quantum mechanics. Maybe do more of a division of lecture versus discussion, instead of contributing so much time to discussion.

11 More structured lesson plans would be nice. Sometimes I didn't have time to read the material before class so I wouldn't have any questions.
12 class format that involved an open style of discussion, presentation and learning is a welcome change to the passive, lecturing model

13 I think that he should have taught more and went through examples instead of referring us to th ebook. Which would lead us to ask him questions in class. There weren't too many in class presentations in the form of a lecture. There were just questions by students about difficult areas in the readings. When he did go over a general chapter i found that i learned more from it, because he would refer the topic to other contexts to give a better understanding.
no comment
None I can think of actually
none
I found the lecture format quite frustrating. Too much time was spent on planning out what would be discussed instead of just jumping in and starting. Also, more examples that could be worked through as a class would be helpful. No matter how well
the concepts áre explained orally, when presented with an assignment question, examples with step by step procedures are far more helpful.
18 I certainly think the instructor tried his best to present the course material, but I think few things could have been done better. A lot of time was spend at the begining of every class on the "things on the agenda " and things which did not have anything to do with the course whatsoever( i.e he digresses for too long unneccessarily ). Class presentations could be improved by bring in illustrative examples which I felt were missing in almost all of the class presentations. After explaining a concept, a couple of examples could be thrown that actually address the material more, and the instructor could work it out in front of the class and give a similar problem to students to work on their own maybe as homework or in the class. I find that we deal a lot with concepts but actually do not deal with the applications, which reiforce the concepts. When I had to do homework I had to start all over again reading the chapter, at times I felt that the classes were not very useful. The instructor, himself, is a great person, very approachable and hard working and he explains the concepts very well or at least he tries to.
19 Present key ideas to us, then ask us if there are any extra areas we want to explore. Also, example questions might be helpful.
20 I found the instructor to be very good. I think it was a good idea to have more of an "open" format to the lectures, but I would've liked it a bit better if there was more presentation of the material in class, because when weeks occurred where I couldn't get the readings done before lecture, the class served as very little benefit. I think the midterm was an excellent one in that it was a great indicator of what I had learned in the course.

## Detail Summary: early-course-survey

## Question: Fz. Further comments about the course overall

What further comments do you have about the course overall?

## Responses

## User ID Response

2 Am I ever going to comprehend Schroedinger's equation? I hope so!

3 I think that we shouldnt be using a 3rd year textbook for a 2nd year course.

4 So far, this coarse has been a lot of work, but I feel like I've learned a lot.
$5 \quad$ The material covered did not apply to my interests in physics. However, it was mandatory to take for higher level physics courses and for understanding Quantum Physics and Quantum Mechanics.

6 The instructor should not have to mark all assignments on his own as well as for his other corses, this and the preperation may decrease his effectiveness.

7
8
None
A good course, but the mathematics can be intimidating and a seemingly LARGE jump from first year physics. It may be better to do shorte weekly assignments, or biweekly assignments. The assignments in this class seem to take alot of time away from other courses.
9 None
11 I'm enjoying the course, and I find the lectures very interesting the way Johann presents it.
12 I had previouslly argued that assignments would be better assigned more infrequently. After have done so many of them, I think that once-a-week is actually a good idea since is forces students to stay current with the material and quickly identifies and deficiencies in understanding. It also forces learning a bit at a time, which is really better than trying to learn more at once.

13 The course is interesting, but with an assignment and a lab due every week, it seemed to never end. Because once you handed one in you recieved another. You could never get a break. Then with additional classes it was a little overwhelming at times.
no comment
This is just a great course for introducing quantum physics. I enjoyed it although I thought the assignments were due too soon from the date issued.
it is a very fast paced course. it could be slowed down just a touch. especially on the harder material like the chapters we are getting into this month. i like the course overall though
18 The weekly assignment consumed a lot of my time sometimes. They are definetly a great way to learn the course material but they should be reasonably short.

Too many assignments
Only that I think assignments should've been worth more of our final grade. Other than that I think the course was pretty good.

22 I commend the teaching of the course as student driven learning. However, if it is expected that a student learn everything ahead of the lectures, then less problem sets should be issued as should students spend the majority of their time understanding the material and not working on the problem sets. A weekly problem set causes students to look for the solution and not expand outside of the realm of the question in general.

