

# Physics 10 – Descriptive Introduction to Physics

## 1. Course Description:

Application of physics to modern life with minimum of mathematical emphasis

## 2. Prerequisites:

Minimum grade of C in elementary algebra

## 3. Instructor:

Dr. Wai Min Liu  
Voicemail # (626) 585-7150

## Email

[WLiu@controloptics.com](mailto:WLiu@controloptics.com)

## Office

E310E

## 4. Textbook:

Thomas Griffith, The Physics of Every Day Phenomena (Required)

Reference: Former Physics 10 students, Physics 10 Study Guide

Jerry D Wilson, Physics – A Practical & Conceptual approach

Paul G Hewitt, Conceptual Physics

## 5. Quiz and Examination:

Exam	Points
1 <sup>st</sup> Midterm	200 pts
2 <sup>nd</sup> Midterm	200 pts
Project Report	150 pts
Quiz (calculation)	150 pts
Final	300 pts
<b>Total</b>	<b>1000 pts</b>

Academic dishonesty (cheating) will NOT be tolerated. This includes copying other people's work or allowing another student to copy your work. Altering graded work is another offense.

## 6. Class Policies & Regulations:

- No make up test or exam
- Each absence deducts 20 points; Each tardy or early departure deduct 10 points
- Each talking or C-phone ringing during lecture deducts 20 points
- Extra Bonus on Hardware Projects
- Project report due one day after midterm
- Project presentation limited to 15 Min.
- Sit in your assigned seats during lecture for attendance

## 7. Course Outline

- A. Mechanics and Applications
- B. Electricity, Magnetism and Applications
- C. Properties of matter and Applications
- D. Sound Applications
- E. Nature of Light, Optics and Applications
- F. Modern Physics, Laser and Applications

## 8. Field Trips, video movies, and invited speakers will be arranged if time permits.

W. Liu 08/29/05

PHYSICS 10 LAB  
SCHEDULE

<b>Wk #</b>	<b>Exp#</b>	<b>The Point</b>	<b>Lab</b>	<b>Chapter</b>
1	1	Observation	Classification	3
2	2	Deduction	Pendulum/Graphs and Motion	5, 6
3	3	Work and Energy	Lever	9, 10
4	4		Pulley	7, 8
5	5		Inclined Plane, Wheel and Axle	11, 12
6	6	Fluids	Archimedes Principle	14, 15
7	7	Electricity	Circuits	35, 36
8	8	Electricity	Circuits	35, 36
9	9	Vibrations and Waves	Wave Tanks and resonance	16
10	10	Geometrical Optics	thin Lenses and Image Formation	18, 19, 20
11	11	Wave Optics	Young's Experiment	
12	12	Atoms and Spectra	Spectra	
13	13		Specific Heat/Heat of Fusion/heat of Vaporization	32
14	14		Charles Law	23, 24
15	15		Thermal Expansion	27

## Physics 10 - Lecture Notes Sections vs. Chapter in Text Book

Lecture Notes Sections	Chapters in the Text Book
1	1, 2, 3, 4, 5
2	7
3	6
4	8, 10
5	9
6	8, 10
7	11
8	12
9	13
10	14
11	15
12	16, 17
13	18
14	19
15	20, 21
16	22
17	29
18	28
19	27
20	30, 31