PHYS_0174: Physics for Science and Engineering 1

Instructor: Jeungphill Hanne

<Education>

- PhD, Physics, University of California-Los Angeles, USA
- → Majoring in Experimental Biophysics (Dr. Giovanni Zocchi)
- PhD Study, Physics, University of Florida (UF), USA
 - → Majoring in Theoretical Elementary Particle physics
- MS, Physics, University of California-Riverside, USA
- BS, Physics, Inha University, South Korea

<Professional Experiences>

- Jul. 2010~ Aug. 2019: Postdoctoral Research Associate,
 The Ohio State University Wexner Medical Center, (Adviser: Dr. Richard Fishel)
- → Studying DNA Mismatch Repair by Experimental Biophysics
- Sept. 2006~ Apr. 2010 : **Senior Research Scientist**, LG Display Co, Ltd., South Korea → Optical Physics
- → So, you can come to me anytime, and can ask any advice, or question for the future Career, and so on...., Very happy to share my experience, but the choice is yours!!

<Personal>

- a Wife and a twins (Boy and Girl) (5th grade in the elementary school at Chengdu)
- → Came to SCUPI last Fall to seek for more opportunities and am very glad to be here now ^^



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Agenda for today

1. SCUPI 2020 spring Academic Calendar

- Academic Calendar: Midterms & Final etc.
- My Schedule : Office hours etc.

2. Course Introduction

- Course information
 - Subject, Text book, Lecture Hour, Office hour, Course website, etc.
- Course Objective & Scope
- Course Grading & Tentative Course Schedule

After Break,

3. Introduction of Physics

- What is physics and Why need Physics
- Scope of Physics & What is Classical Mechanics

1. SCUPI 2020 spring Academic Calendar

Academic Calendar: Midterms & Final etc.

	Feb.		Ma	ar.			A	pr.		1		May		,	1	Ju	ın.	ļ	1		Jul.		,	1	A
Monday	24	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10
Tuesday	25	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	14	21	28	4	11
Wednesday	26	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12
Thursday	27	5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25	2	9	16	23	30	6	13
Friday	28	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14
Saturday	29	7	14	21	28	4	11	18	25	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15
Sunday	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16
SCU Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
SCU Term							20	20 Sp	ring T	eachin	ng Weel	ks							Intl. Weeks Summer Recess			ecess			
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Notes:												+						H							
Registration: F	Februar	y 20 -	21												ļ	'				1					
Make-up Exams February 21 - 23												7		1											
_	Classes begin: February 24																								
Tomb Sweeping Day: April 4								İ																	
May Day: May 1																									
Dragon Boat F															J	—	-				\vdash	\vdash	-	-	
International W	Veeks (& Mili	itary T	rainin	g (Fre	shn <mark>i</mark> en)): June	29 - يا	July 17	2					ļ	'	1 1								
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This schedule is preliminary!!

1. SCUPI 2020 spring Academic Calendar

My Schedule : Office hours etc.

		2040 2020 F-II	Companies Coloradula		
			Semester Course Schedule		
Class time	Monday	Tuesday	Wednesday	Thursday	Friday
08:15-09:00	Physics I 01 3-101				
09:10-09:55	Physics I 01 3-101	Electric Circuit 01 3-106		Electric Circuit 02 3-106	
10:15-11:00		Electric Circuit 01 3-106		Electric Circuit 02 3-106	Physics I 02 3-101
11:10-11:55		Electric Circuit 01 3-106		Electric Circuit 02 3-106	Physics I 02 3-101
			Lunch Break		
13:50-14:35		Physics I 02 3-101	Physics I 01 3-101		
14:45-15:30		Physics I 02 3-101	Physics I 01 3-101		Office Hour Physics I
15:40-16:25					Office Hour Electric Circuits
16:45-17:30			Office Hour Physics I	Office Hour Electric Circuits	
17:40-18:25					

But, you can come to my office anytime when I am in my office ^^

2. Course Introduction

Course information

Physics for Science and Engineering 1

- Learn the basics of General Physics 1 :
 Newtonian Mechanics and Gravity
- → Fundamental to Engineering Research

Text Book

Principle of Physics by David Halliday ,
 Robert Resnick & Jearl Walker,
 10th edition.:ISBN-13: 978-1118230749s

Lecture

- Instructor : Jeungphill Hanne, PhD jeungphill.hanne@scupi.cn
- Time: Mon.(08:15-9:55), or Wed. (13:50-15:30)
- Office Hour: Wed.(16:45-17:30)/ Fri.(14:45-15:30)
- Office: 3-321 @ Zone 3

• TA :

- Office Hrs: To be announced.

Course Format

- Lecture, and Active Participation (i.e. Quiz, Quiz Presentation, Group Presentation, etc.)

Course Grading

- Two Midterms, Final, Homework, Quiz, and Attitude (ex. Attendance, Engagement, Punctuality for HW, etc.)



Principles of Physics

Tenth Edition



2. Course Introduction

Course Scope & Objective

- Objective : Understanding the basics of "Classical Mechanics", Learning new Physical, or mathmatical properties/theorem and eventually How to derive them from Newton's Laws
- Scope: Motion, Newton's Three Laws, Gravitation, new Physical, or Mathematical properties
 (i.e. Work, Momentum, Kinetic/Potential Energy, Center of Mass), Specific Motion (i.e. Rotation), Rigid Body Motion, Equilibrium, and OSCILLATIONS etc.
 - → Required : Some mathematical Background ! (Vector, Derivative, Integral)

All theorem & concepts will be derived from Newton's Laws , except Gravitation!

Course Grading

- Grading Components: HW(15%), Quiz (10%), Midterm I (23%), Midterm II (23%), Final (24%) and Attitude(5%: Attendance, Engagement, Punctuality for HW, etc.)

Tests are not accumulative!

Tentative Course Schedule

Week	Dhysics 2 (DUVS 017E)	Tonics	Assignment
week	Physics 2 (PHYS 0175)	Topics	Assignment
Week 1 (2/24-3/1)	Introduction & Chap 1	Syllabus & Measurement & Motion	
Week 2 (3/2-3/8)	Chap2 &Chap 3	Motion, Vectors	HW1
Week 3 (3/9-3/15)	Chap3 &Chap 4	Motion in Two and Three Dimensions	HW2
Week 4 (3/16-3/22)	Chap 4 &Chap 5	Force and Motion—I	HW3
Week 5 (3/23-3/29)	Chap 5 & Review		HW4
Week 6 (3/30-4/5)	Chap 6 & Mid Term 1	Force and Motion—II	
Week 7 (4/6-4/12)	Chap 6 &Chap 7	Kinetic Energy and Work	HW5
Week 8 (4/13-4/19)	Chap 7 & Chap 8	Potential Energy and Conservation of Energy	HW6
Week 9 (4/20-4/26)	Chap 8 & Chap 9	Center of Mass and Linear Momentum	HW7
Week 10 (4/27-5/3)	Chap 9 & Chap 10	Rotation	HW7
Week 11 (5/4-5/10)	Chap 10 & Review		HW8
Week 12 (5/11-5/17)	Chap11 & Mid Term 2	Rolling, Torque, and Angular Momentum	
Week 13 (5/18-5/24)	Chap11		HW9
Week 14 (5/25-5/31)	Chap 11 & Chap 12	Equilibrium and Elasticity	HW 10
Week 15 (6/1-6/7)	Chap 12 & Chap 13	Gravitation	
Week 16 (6/8-6/14)	Chap 13		HW11
Week 17 (6/15-6/21)	Chap 15 & Review	OSCILLATIONS	
Week 18 (6/22-6/28)	Final week		

Thank you everybody!

Let's see again in 10 minutes!