

# General Physics II - Syllabus

Fall semester 2019

## Course information

Code	Title	Credit	Coordinator
PHYS152	General Physics II	3	Office of General Physics

**Course objective:** Understanding basic physics course involving electromagnetism, electric circuit, optics, and matter waves.

**Prerequisites:** None.

**Textbook:** Halliday, Resnick, and Walker, *Principles of Physics, 10th Edition* (John Wiley & Sons, Inc)

**Reference:** *Quiz Samples*

## Course Policies

Evaluation : [100 points per exam]  $\times$  [2 exams] + [quiz 100 points] = [300 points total]

The number of absences	Penalties
3 ~ 5	one-step downgrade
6 ~ 9	two-step downgrade
10 or more	F

## Tentative Course Outline

Week	Dates	Contents	Comments
<b>W1</b>	09/02 ~ 09/06	<b>21. Coulomb's Law</b>	Demo: Van de Graaf Generator
		<b>22. Electric Field</b>	
<b>W2</b>	09/09 ~ 09/13	<b>23. Gauss' Law</b>	HANGAWI WEEK (09/12 ~ 9/14)
		<b>24. Electric Potential</b>	
<b>W3</b>	09/16 ~ 09/20	<b>25. Capacitance</b>	Demo: Series and Parallel Circuit
		<b>26. Current and Resistance</b>	
<b>W4</b>	09/23 ~ 09/27	<b>27. Circuit</b>	
	09/30 ~ 10/04		

<b>W6</b>	10/07 ~ 10/11	<b>28. Magnetic Fields</b>	
<b>W7</b>	10/14 ~ 10/18	<b>29. Magnetic Fields Due to Currents</b>	Demo: Magnetic Fields Due to Current
<b>W8</b>	10/21 ~ 10/25	<b>30. Induction and Inductance</b> <b>10/25: Mid-Term Exam</b>	Exam covers chapters 21 ~ 29.
<b>W9</b>	10/28 ~ 11/01	<b>31. Electromagnetic Oscillations and Alternating Current</b>	
<b>W10</b>	11/04 ~ 11/08	<b>32. Maxwell's Equations</b> <b>33. Electromagnetic Waves</b>	
<b>W11</b>	11/11 ~ 11/15	<b>35. Interference</b>	Demo: Newton's Ring
<b>W12</b>	11/18 ~ 11/22	<b>36. Diffraction</b>	
<b>W13</b>	11/25 ~ 11/29	<b>38. Photons and Matter Waves</b>	Demo: Cathod Ray Experiment
<b>W14</b>	12/02 ~ 12/06	<b>39. More About Matter Waves</b>	
<b>W15</b>	12/09 ~ 12/13	<b>Progress Adjustment or</b> <b>37. Relativity (optional)</b>	
<b>W16</b>	12/16 ~ 12/20	<b>12/20: Final Exam</b>	Exam covers chapters 30 ~ 39 except for 34 and 37.