

Basic Physics

Syllabus Number

0L192

Remedial Subject

Elective 2 credit

OGAWA, Hitoshi

1. Course Description

Velocity and acceleration, free fall and parabolic movement, force and equilibrium of forces, the laws of motion, conservation of momentum and collision, work and power, mechanical energy, uniform circular motion, density, pressure, and the nature of the wave

This class is designed to achieve logical, critical and active manners based on the Educational Goals 2.

2. Course Objectives

As the introduction to physics, you take up the dynamics, which is one of the fields of physics understand the close relationship between the motion and the force.

Furthermore, through doing practices, you will be able to solve realistic problems.

3. Grading Policy

Evaluated by a midterm examination, a term-end examination (80%), the result of small tests and the assignments (20%).

Students are allowed to bring an electronic calculator.

4. Textbook and Reference

Textbook

Handouts as teaching materials will be given during lessons.

The reference book : The textbook in the high school- Physical basics, Physics (Old course Physics I, Physics II)

5. Requirements(Assignments)

It is convenient if you have a function calculator.

6. Note

7. Schedule

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|------|--|
| [1] | fundamental unit, conversion of units |
| | <Comment>
訂正無し |
| [2] | velocity and acceleration |
| | <Comment>
訂正無し |
| [3] | motion of falling body |
| | <Comment>
訂正無し |
| [4] | uniform circular motion |
| | <Comment>
訂正無し |
| [5] | force and equilibrium |
| | <Comment>
訂正無し |
| [6] | law of motion |
| | <Comment>
訂正無し |
| [7] | motion to receive the resistance |
| | <Comment>
訂正無し |
| [8] | summary of the former half and the midterm exam |
| | <Comment>
訂正無し |
| [9] | momentum and impulse |
| | <Comment>
訂正無し |
| [10] | momentum conservation and coefficient of restitution |
| | <Comment>
訂正無し |

- [11] work and energy
<Comment>
訂正無し
- [12] conservation law of mechanical energy
<Comment>
訂正無し
- [13] nature of the wave (1)
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訂正無し
- [14] nature of the wave (2)
<Comment>
訂正無し
- [15] summary of the latter half and the final exam
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