

<p>(Course Title) Physics in Kyoto iUP preparatory course</p>	<p>(Course offered period) 2nd Semester (Numbers of weekly frame) Two</p>
<p>(Affiliated department) Institute for Liberal Arts and Sciences</p>	<p>(Class style) Lecture (Eligible students) Students of Kyoto iUP</p>
<p>(Job title) Professor</p>	<p>Preparatory course</p>
<p>(Name) YOSHIKAZAKI, Takenao</p>	<p>(Day/period) Tuesday/2 and Wednesday/2</p>
<p>(Outline and Purpose of the Course) Providing students with basic knowledge of mechanics and electromagnetism required for admission into undergraduate school of science, engineering, and agriculture.</p>	
<p>(Course Goals) The goal is to acquire the Physical knowledge which is equivalent to the graduates of Japanese high school, e.g. to acquire the knowledge and skills to solve the EJU level problems. EJU: Examination for Japanese University Admission for International Students</p>	
<p>(Course schedule and Contents) The lectures and exercises of following topics will be executed. Mechanics: Equilibrium of forces, Friction, Newton's equation of motion, Conservation of momentum, Impulse, Conservation of mechanical energy, Centrifugal force, Law of universal gravitation Electromagnetism: Coulomb's law, Electric field, Electric potential, Capacitor, Register, Ohm's law, Coulomb's law of magnetic force, Magnetic field, Biot-Savart's law, Fleming's left-hand rule, Lorentz force, Electromagnetic induction</p>	
<p>(Class requirement) Students in the Kyoto iUP preparatory course</p>	
<p>(Evaluation methods and policy) The final examination is used to evaluate the progress.</p>	
<p>(Regarding studies out of class (preparation and review)) The preparation is requested if there are some unknown knowledge in the basic contents in the material distributed beforehand. The homework must be submitted till the specified date. The student who submitted the specified exercise problem beforehand will be exempt from the participation in the lecture.</p>	
<p>(Others (office hour, etc.)) Based on a student's understanding level, the interview with students will be scheduled temporarily.</p>	
<p>(Textbook) The original material prepared by the teacher is uploaded to PandA before each lecture.</p>	
<p>(References) The additional material will be assigned to the students whose understanding level is insufficient.</p>	
<p>(Related URL)</p>	

<p>(Course Title) Advanced Physics in Kyoto iUP preparatory course</p>	<p>(Course offered period) 2nd Semester (Numbers of weekly frame) One</p>
<p>(Affiliated department) Institute for Liberal Arts and Sciences</p>	<p>(Class style) Lecture and Exercise (Eligible students) Students of Kyoto iUP</p>
<p>(Job title) Professor</p>	<p>Preparatory course</p>
<p>(Name) YODEN, Shigeo</p>	<p>(Day/period) Monday / 2</p>
<p>(Outline and Purpose of the Course) The purpose of this course is to experience the past entrance examinations of Kyoto U. in order to fill the gap between physics learned in high school and those you will learn in Kyoto U. A thorough thinking process with deeper knowledge would be required, rather than EJU-type questions to answer many relatively simple questions within limited time. We include a 30 min. section to prepare a skill on learning physics in Japanese by reading the same past entrance examination both in English and Japanese.</p>	
<p>(Course Goals) The final goal is to acquire the knowledge of solving problems comparable to the level of Kyoto U. entrance examination.</p>	
<p>(Course schedule and Contents) The lectures and exercises on the following topics will be executed:</p> <ul style="list-style-type: none"> • Mechanics: shock absorber models, parabolic motion on a moving slope base, circular motion in a vertical plane, circular motion of a small ball on a cart, simple harmonic oscillation of two objects connected by a spring • Electromagnetism: Hall effect and transfer of charge in a capacitor, AC/DC circuits including condensers and resistors, charge in a conductor rod across a magnetic field, electromagnetic induction by a ladder coil, a circular accelerator <p>For each class, 90 min. are divided into three 30 min. and the first 30 min. are for the explanation of the answers to the previous week's Question; the next 30. min. for answering a new Question without any help material, and the last 30 min. for other activities such as learning the same Question in Japanese, summarizing important fundamental concepts, etc.</p>	
<p>(Class requirement) Students in the Kyoto iUP preparatory course.</p>	
<p>(Evaluation methods and policy) No performance evaluation.</p>	
<p>(Regarding studies out of class (preparation and review)) Any specific preparation is not requested. The review of each day Question would be important at home to find the true answers by referring to textbooks or references. The explanation of the Question and answer will be given in the next week class.</p>	
<p>(Others (office hour, etc.)) Please make an appointment, if any office-hour activity is necessary.</p>	
<p>(Textbook) The original material prepared by the teacher is uploaded to Panda before each lecture.</p>	
<p>(Related URL)</p>	