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<p>Evaluation methods :</p>	<p>A test on the material seen during the first four weeks will take place at the end of the fifth week. It will count for 5% of the final grade. Laboratory reports will count for 15% of the final grade. The June session exam will be written, last four hours and count for 80% of the final grade.</p> <p>The test and the exam will include various problems similar to those solved in the supervised exercise sessions (in the exam, one of these problems will be taken from the list of problems solved in the sessions) and some questions whose aim is to confirm that the concepts and developments presented during the theoretical course have been well absorbed (comprehension questions, demonstrations, true or false with or without justification, multiple-choice questions or gap-filling exercises).</p> <p>Everything studied during the theoretical lessons and supervised exercise sessions should be known for the test and the exam. The students have access to the data on UCL's LPHY1122 Moodle site. Students must have a simple scientific calculator in both assessments.</p>

<b>Teaching methods :</b>	<p>The teaching activities comprise (1) the theoretical course (two hours per week), (2) supervised exercise sessions (15 sessions of two hours), (3) practical laboratory work (4 sessions of two hours) and (4) the tutorial. Students must have a simple scientific calculator in the supervised exercise sessions and the practical laboratory work.</p> <p>The entire topic will be presented in the theoretical course via slides and blackboard notes. The fundamental concepts will be illustrated using applications to modern life, short films/animations and experiments. The supervised exercises will play an essential role in the comprehension of the theoretical course and allow the application of theoretical concepts studied to real problems. The list of problems to be solved during the exercise session and a list of additional problems will appear on the UCL LPHY1122 Moodle site approximately one week prior to each exercise session. Preparation of the problems to be solved is obligatory. Participation in the practical laboratory sessions is obligatory. A description of the tasks to be carried out in the laboratory will appear on the UCL LPHY1122 Moodle site approximately one week prior to each session. It is essential that this description be read carefully and that the preliminary questions be answered prior to the session. A laboratory report must be written and at the end of the session and it will be assessed. One tutorial, during which the students may ask their questions to the teaching team, will be organised each week.</p>
<b>Content :</b>	<p>The content of the first part of the course will relate to the physics of liquids and deal with the following matters: hydrostatics - fluid dynamics - the macroscopic properties of gases - kinetic theory of gases - changes of state in a pure substance. The second part of the course, that concerns electricity and magnetism, deals with the following: Coulomb's law - electric fields and potential - Gauss' lemma - capacity and capacitors - electric fields in matter - Joule's and Ohm's laws - internal resistance - Kirchhoff's laws - measurement apparatus - capacitor loading and unloading - magnetic field - Ampère's law. The matters will be approached with a view to being used in the fields of biology, chemistry and geography in every sense.</p>
<b>Bibliography :</b>	<p>The slides and films/animations presented in the theoretical course, the list of exercises to be solved, the materials for practical work in the laboratory and other useful documents are available to the students on the UCL LPHY1122 Moodle site.</p> <p>The theoretical course follows the books quite closely 'Physique, 1. Mécanique, 5th edition' and 'Physique, 2 Electricité et Magnétisme, 5th edition' written by H. Benson and edited by De Boeck. The student may be required to look at other bibliographical references. For a deeper understanding of the lecture, the students is also encouraged to have a look on other textbooks of general physics. He can be guided in this quest by the two professors.</p>
<b>Faculty or entity in charge:</b>	PHYS

<b>Programmes / formations proposant cette unité d'enseignement (UE)</b>				
Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Bachelor in Biology	<a href="#">BIOL1BA</a>	6	-	
Bachelor in Geography : General	<a href="#">GEOG1BA</a>	6	-	
Bachelor in Chemistry	<a href="#">CHIM1BA</a>	6	-	