

<b>Subject Code</b>	AP2S01
<b>Subject Title</b>	Enhancing Scientific Literacy through Daily Physics
<b>Hosting Department</b>	Department of Applied Physics
<b>Level</b>	2
<b>Class Quota</b>	72
<b>Medium of Instruction</b>	English
<b>Subject Duration</b>	Semester 2 + Summer Term
<b>Teaching Staff</b>	Dr. K.L. Jim, and Dr. S.H. Choy
<b>Target Students</b>	GUR, open-for-all
<b>Pre-requisites</b>	Nil
<b>Selection of students required?</b>	No
<b>Subject Synopsis</b>	<p>The topics in the course syllabus cover three areas:</p> <p><b>Concept and Practice of Service Learning:</b></p> <ul style="list-style-type: none"> <li>• Principles, concepts and myths of service learning</li> <li>• Benefits of service learning to students, the university and the community</li> <li>• Ethical issues in service learning</li> <li>• Basic concepts and theories of social problems, developments and justice</li> <li>• Social responsibilities of global citizens as intellectuals and professionals</li> <li>• Proper attitudes and behaviours in service delivery</li> <li>• Developing a service project proposal</li> <li>• Effective team work and problem solving skills in service-learning projects</li> <li>• Reflection as a tool for learning</li> </ul> <p><b>Discipline-Specific Concepts, Issues and Skills</b></p> <ul style="list-style-type: none"> <li>• Principles and concepts of scientific literacy and thinking</li> <li>• Scientific methods and inquiry; formulation, hypothesis, prediction and experiment;</li> <li>• Physics concepts in force and energy, weather and climate, health and environment, and working principles of different scientific equipment</li> <li>• Impact of scientific literacy on society; fear of science; pseudo-science versus proto-science</li> </ul> <p><b>Project-Specific Concepts, Issue and Skills</b></p> <ul style="list-style-type: none"> <li>• Concepts and practices in teaching and demonstrating scientific concepts to young children, including teaching methods; Bloom's taxonomy; classroom management and development of teaching plans; communication skills and effective explanation of science principles to children without using technical jargons</li> <li>• Financial, cultural and socioeconomic challenges faced by children in underprivileged community</li> <li>• Moral, ethical and safety concerns related to teaching and supervising children</li> </ul>



Service Project	
<b>What will students do to serve?</b>	<p>In the service-learning projects, students will work in groups and be attached to the partner primary schools. The focus of the projects will be on enhancing children's interest in learning and motivating them to explore the world of physics. In addition, through mentoring, PolyU students will serve as role models to the children and inspire them to set higher future goals.</p> <p>PolyU students will visit the primary schools in groups. Small-group educational activities related to daily physics will be demonstrated. Students' behavior during services will be supervised, and their performances will be regularly assessed by on-site supervisors from AP, with comments and suggestions from serviced primary schools.</p>
<b>Whom will students serve?</b>	Primary school students
<b>Where will students serve?</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input checked="" type="checkbox"/> Hong Kong  <input type="checkbox"/> Chinese mainland   <input type="checkbox"/> Taiwan  <input type="checkbox"/> Macau  <input type="checkbox"/> Overseas </div> <div style="width: 50%;"> District: Sham Shui Po  <hr/> Province:  <hr/> City:  <hr/>   Country:  <hr/> City:  <hr/> </div> </div>
<b>When will students serve?</b>	Weeks 7 to 13 of Semester 2, after Semester 2 exam and Summer Semester
<b>Fee payable by students</b>	N/A
Service Attributes	
<b>Service Mode</b>	<input type="checkbox"/> #OnlineService <input checked="" type="checkbox"/> #F2FService
<b>Service Language</b>	<input checked="" type="checkbox"/> #ServiceClient_Cantonese <input type="checkbox"/> #ServiceClient_English <input type="checkbox"/> #ServiceClient_Putonghua <input type="checkbox"/> #ServiceClient_OtherNonEnglish
<b>Service Location</b>	<input checked="" type="checkbox"/> #Location_HK <input type="checkbox"/> #Location_MainlandChina <input type="checkbox"/> #Location_Taiwan <input type="checkbox"/> #Location_Macau <input type="checkbox"/> #Location_Overseas
<b>Enquiry</b>	Dr. K. L. Jim ( <a href="mailto:apiim@polyu.edu.hk">apiim@polyu.edu.hk</a> ) Dr. S. H. Choy ( <a href="mailto:apshchoy@polyu.edu.hk">apshchoy@polyu.edu.hk</a> )