







# International Physics Tournament Training (Safe Cracking) (SCIS3011)

<p><b>Introduction</b></p>	<p>This course aims to provide experimental physics training and apply physics principles to develop a locking mechanism (Safe) for the “Safe Cracking” International Physics Tournament. The safe development may involve Apps development (App Inventor), microcontroller interfacing and programming, concepts of analog and digital data, motor controls, applications of sensors, data measurements, mechanical drawing using 3D printer, and electronics with circuit board development. Training to break in other teams’ Safe will also be provided. To strengthen the above experimental skills, theoretical physics training may also be given.</p>		
<p><b>Programme Type / Level</b></p>	<p>Advanced Course in Physics (<a href="#">Token-required</a>)</p>		
<p><b>Instructor(s)</b></p>	<p>Dr Chan Mau Hing (Lecturer, The Department of Physics, Hong Kong Baptist University)</p>		
<p><b>Pre-requisite</b></p>	<p>No special prerequisites are needed, but an innovative mind in physics experimental setup and good communication/presentation skills are preferable.</p>		
<p><b>Target Participants</b></p>		<ul style="list-style-type: none"> <li>➤ S4 to S6 HKAGE student members only in 2019-20 academic year</li> <li>➤ Class size: 5</li> </ul>	
<p><b>Medium of Instruction</b></p>		<p>Cantonese with English handouts</p>	
<p><b>Certificate</b></p>		<p><b>E-Certificate</b> will be awarded to participants who have:</p> <ul style="list-style-type: none"> <li>❖ Attended <b>at least 8 sessions</b>; <b>AND</b></li> <li>❖ Completed all the assignments with <b>satisfactory performance</b></li> </ul>	
<p><b>Intended Learning Outcomes</b></p>		<p>Upon completion of the programme, participants should be able to:</p> <ol style="list-style-type: none"> <li>1. describe and apply physics knowledge on building and designing a locking mechanism of a safe;</li> <li>2. collaborate effectively during designing and making a safe;</li> <li>3. construct a safe complying to the official criteria for the International Physics Tournament.</li> </ol>	
<p><b>Screening</b></p>		<p>Please answer the screening question in the online application form. *The screening question is designed to help the applicant understands the course level and the course content. The question must be answered by the student applicant and it can only be attempted once. The answer cannot be changed once the application is submitted. Selection is based on students’ performance in answering the question. Only students who can demonstrate motivation and the basic knowledge of Physics in the screening question can be enrolled in the programme.</p>	
<p><b>Application Deadline</b></p>	<p><b>6 Nov 2019, 12:00 n.n.</b> <b>16 Nov 2019, 12:00 n.n.</b></p>	<p><b>Application Result Release Date</b></p>	<p><b>7 Nov 2019</b> <b>19 Nov 2019</b></p>
<p>Student members may withdraw from the programme on or before the deadline. Otherwise, the token will be deducted.</p>			

## Schedule



Session	Date	Time	Venue
1	23 Nov 2019	9:15 a.m. – 12:15 p.m. 9:30 a.m. - 12:30 p.m.	Room 405, HKAGE OEE802 (Lab), Oen Hall Building, Ho Sin Hang Campus, Hong Kong Baptist University <sup>1</sup>
2	30 Nov 2019	4:00 p.m. – 4:00 p.m. 1:30 p.m. - 4:30 p.m.	
3	14 Dec 2019	9:30 a.m. - 12:30 p.m.	OEE802 (Lab), Oen Hall Building, Ho Sin Hang Campus, Hong Kong Baptist University <sup>1</sup>
4	21 Dec 2019	2:00 p.m. – 5:00 p.m. 1:30 p.m. - 4:30 p.m.	
5		9:30 a.m. - 12:30 p.m.	
6	11 Jan 2020	2:00 p.m. – 5:00 p.m. 1:30 p.m. - 4:30 p.m.	
7	15 Feb 2020	9:30 a.m. - 12:30 p.m.	
8	30 May 2020	2:00 p.m. – 5:00 p.m. 1:30 p.m. - 4:30 p.m.	
9	21 Mar 2020	9:30 a.m. - 12:30 p.m.	
10	13 Jun 2020	2:00 p.m. – 5:00 p.m. 1:30 p.m. - 4:30 p.m.	

<sup>1</sup> Address: Kowloon Tong, Kowloon, Hong Kong ([Map](#))

Remark: students of this training course need to attend the “Safe Cracking” International Physics Tournament (ILO/012) in Israel on 22-27 Mar 2020. For details, please refer to webpage of [ILO/012](#).

## Enquiries



For enquiries, please contact us at 3940 0101 after language selection, press "1".

# SCIENCES

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