

Hong Kong Baptist University
Faculty of Science – Department of Physics

Title (Units): **PHYS 4065-66-67** **TOPICS IN PHYSICS I, II, III (3, 3, 1)**

Course Aims: To provide the student with more advanced knowledge of physics. This subject covers more advanced topics or topics of current interest. Some examples of topics includes: Acoustics, Computer-controlled Instrumentation, Materials Science, Electronic Instrumentation, Lasers and Their Applications, Optoelectronics, Semiconductor Physics, and Spectroscopy. This subject can be repeated for credit if the topic is different.

Pre-requisite: Year 4 standing or consent of instructor

Course Reviewed by: Dr. Jack Ng and Prof. Shu-kong So

Course Intended Learning Outcomes (CILOs):

Upon successful completion of this course, students should be able to:

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1.	Explain the general scope and issues of an area of contemporary physics.
2.	Address some of the physical problems in that area, from simple recall of concepts to more involved quantitative modeling or laboratory experiments.
3.	Gauge development opportunities in that field.

Teaching & Learning Activities (TLAs)

CILOs	TLAs will include the following:
1, 2	Lectures or lab sessions to cover the systematics.
1, 3	Tutorials and seminars to cover the more open-ended topics. Students may be required to attend some of the departmental colloquiums.
2	Homework or lab assignments. Students are assigned readings, problem sets, and/or lab work.
1, 3	Student project presentation. Students may be required to do projects.

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Assessment Methods (AMs):

No.	Assessment Methods	Weighting	CILOs to be addressed	Remarks
1	To be specified by the instructor	100%	1-3	Generally, homework assignments and tests-examinations will be given. However, because each topic will have different emphasis, the exact form of assessment and weights is best left to the discretion of the instructor. For example, some may, in addition, require mini-projects whilst others may require literature surveys.

Learning Outcomes and Weighting:

Content	LO No.	Teaching (in hours)
To be specified by the instructor	1-3	36

Textbook: To be specified by the instructor

References: To be specified by the instructor