

PHYS 3022 *Applied Quantum Mechanics*

2020-2021 Term 2 (Jan – April 2021)

Course Instructor: Pak Ming Hui

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You are welcome to email me for questions or for making an appointment for online consultation

Course webpage:

<http://www.phy.cuhk.edu.hk/course/2020-2021/2/phys3022/>

PHYS 3022 is a sequel of PHYS 3021 (Quantum Mechanics I). Therefore, background introduced in PHYS 3021 will be used here. The aim is to apply QM, after acquiring some skills on making approximations, to understand the essential physics of atoms, molecules, and nuclei/solids.

Lectures/Tutorials:

Tuesdays 9:30am – 11:15am

Thursdays 12:30pm – 2:15pm

Exercise Classes:

Tuesday 6:30pm – 7:15pm

Wednesday 11:30am – 12:15pm

Wednesday 6:30pm – 7:15pm

Zoom links to (a) Lectures, (b) Exercise Classes, and (c) TAs' weekly Consultation Hours are listed in a separate file.

*Exercise Classes are an integral part of the course. **You must arrange your schedule to attend one exercise class session every week.** TA will work out Sample Questions (examples) resemble those in an upcoming Problem Set. You will learn more effectively if you try out the sample questions before attending exercise classes.*

Assessments:

Problem Sets: 30% Mid-Term Exam: 25% Final Exam: 45%

[Format of the mid-term and final exams is to be decided, according to the Covid-19 situation.]

[***Students must note:*** A necessary (but not sufficient) condition for passing - Students must obtain *more than 20% in the written exam parts* (mid-term plus final) to be considered for a possible passing grade]

About Problem Sets:

- Problem Sets are designed to help you think through the course contents, understand the concepts and methods, and practice
- ***Independent work expected***, although you are encourage to discuss with classmates
- Academic Honesty – CUHK has a zero tolerance policy against plagiarism (don't copy homework). See

<http://www.cuhk.edu.hk/policy/academichonesty/> for University policy and advices.

- You should submit your homework to the appropriate submission folder in Blackboard.
- **T+2 Policy:** Problem Sets should be submitted on or before the due date **T**. Students may submit their work no later than 2 days after the due date (thus T+2), but there will be a 20% discount on the score of that assignment.

Teaching Assistants: 3 TA's, each offering 2 consultation hours per week. They grade your assignments and conduct exercise classes. They welcome questions even beyond the consultation hours. They are here to help you learn.

YEUNG Cheung Hei: SC315, Thu 14:30-16:15 1155093334@link.cuhk.edu.hk

ZHOU Jingren: SC313, Fri 13:30 – 15:15 jrzhou@phy.cuhk.edu.hk

KWOK Ho Pai: SC315, Mon 14:30-16:15 1155079442@link.cuhk.edu.hk

You may also email them for appointments outside their consultation hours.

See separate page for links.

Mathematics Survival

For quick review on mathematical techniques previously covered in Year 1 courses, check out <http://www.phy.cuhk.edu.hk/elearning/maths.html>

See also books on math skills reserved under PHYS 3022 in the University Library (link in course page).