VP160: Honors Physics I

TA Workshop

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UM-SJTU Joint Institute

May 8, 2021

Professor & TAs

Mateusz Krzyzosiak

- Kind and cute, very easy-going.
- Teach VP150, VP160, VP390.
- Good English.

TAs:

- Pingchaung Ma *hensonma@sjtu.edu.cn*
- Zeyi Ren *renn_08@sjtu.edu.cn*

Course Content

1. Kinetics in 3D
2. Newton's Law
3. Harmonic Oscillation (*detailed calculation for damped system)
4. Non inertia FoR (circular motion under spheric coordinates)
5. Work and kinetic energy
6. *Lagrangian Mechanics
7. Momentum
8. Rigid body dynamics (*moment of inertia tensor)

What's different from VP150?

- 20% more content (*)
- More fundamental start point (Basic theories → Detailed calculation and derivation → Results)
- Deeper understanding of Physics.

Workload

- 1 homework per week (3-4 hrs), 12 in total, less than VP150.
- 1 term project $\approx$ 2.5 hw (4-5 person per group, self grouping).
  Last year: https://jbox.sjtu.edu.cn/l/yF3W6g
- Some time for review and self learning.

VP160 workload $\gg$ VP150 workload? No.

About Grading

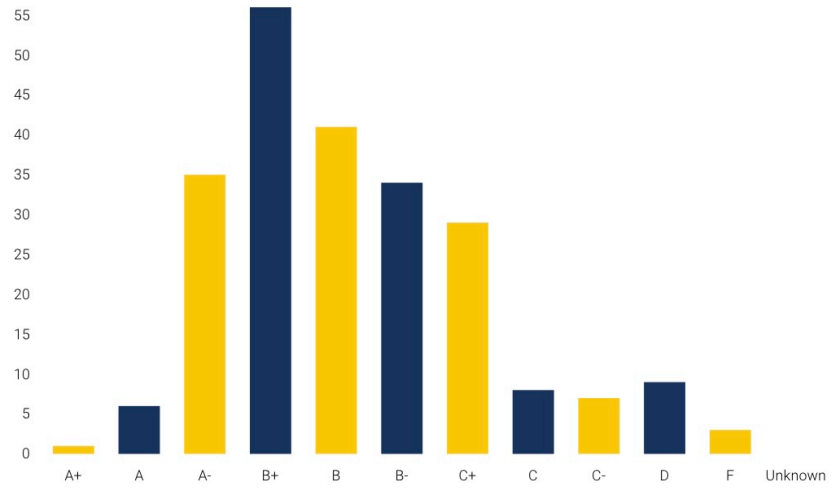
From Last year:

- Homework 25% = 12 problem sets 25%×75% + 1 term project 25% ×25%
- Online activities 15% (last year in class quiz, this year possibly not).
- 1 Mid 30%
- 1 Final 30%

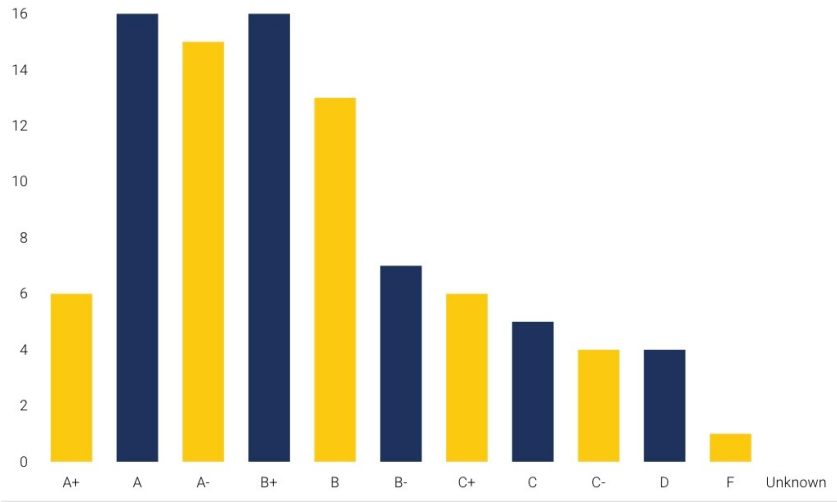
Syllabus for last year: `https://jbox.sjtu.edu.cn/l/KFggnC`

Better grading, the expected median grade is "B^{+}".
Why? A larger chance of getting an "A" or "A^{+}".

⌄	VP140SU2019	SU2019	普通物理（1）SU2019	229	229	Mateusz Krzyzosiak



⌄	VP160SU2019	SU2019	强化物理（J类）（1）SU2019	93	93	Mateusz Krzyzosiak



How to learn VP160 well?

- Never fight alone! Don't stuck on one problem for too much time, don't waste your amazing life! Ask your great fellow classmates (I bet some of you are masters of Physics), your TAs and MK for help. Don't be shy!
- Follow MK during lectures! Try to understand the relationship between physics principles rather than copying the notes.
- Choose a cozy time to attend RCs.
- Take problem sets seriously. Doing some exercises is the best way to learn physics.
- If you feel panic or left behind, OHs are there for you (face-to-face meetings would be recommended).

Generally speaking, the course materials are enough for you to learn very well, but if you have time, here is a useful book :)

https://jbox.sjtu.edu.cn/l/uFljNn

Have fun!!!

Q & A