# General Physics B, Fall 2020, syllabus and important items

**Textbook**: Richard Wolfson, Essential University Physics, 4<sup>th</sup> Edition

Time: Tuesday and Friday, 8:30 am – 9:50 am

**Exams**: The exams will be unified with the Chinese-speaking classes. They will be held at 8:20 am - 9:50 am at the same place as regular classes. No dictionaries, papers, or personal notes are allowed. You may bring a non-programmable calculator.

#### **Grades**:

25 % each for the two mid-term and final exams. 25 % from homework and quiz.

## Homework:

The table below lists the problem sets assigned for this class (from the textbook). Log on to the NTHU elearn system to submit your homework. Note that the numbers quoted in the problem sets may be different online, so you need to solve the problems accordingly. The due dates for the problem sets are listed on the elearn system. The rest of the problems are for your own sake. For the mid-term and final exams, these problem sets and examples in the textbook will be used as references. The website of the online homework system is: <a href="https://elearn.nthu.edu.tw/enrol/index.php?id=11034">https://elearn.nthu.edu.tw/enrol/index.php?id=11034</a>

### **Tutorial class:**

R313 of the Physics Building, 19:00~21:00 (The exact schedule will be posted on elearn system). In case of the access control at night, please enter the building by Door No.3 (south entrance, near the Mong Man Wai Building).

#### Other:

Please turn off your cell phones during classes and exams. If you cannot attend the exam, ask for permission beforehand otherwise you will not get any points for that exam (no adjustment at the end of the semester).

#### Homework:

| Homework                              |                                       |  |  |
|---------------------------------------|---------------------------------------|--|--|
| For the first midterm exam            | Ch 7: 36, 37, 45, 52, 56, 57, 59, 60  |  |  |
| Ch 5: 22, 43, 45, 59, 64, 67, 71, 74  | Ch 8: 28, 45, 47, 56, 58, 67, 70, 71  |  |  |
| Ch 6: 15, 50, 51, 70, 72, 83, 86, 87  | Ch 9: 43, 45, 63, 65, 77, 79, 89, 93  |  |  |
|                                       |                                       |  |  |
| For the second midterm exam           | For the final exam                    |  |  |
| Ch 10: 26, 32, 47, 57, 64, 68, 70, 74 | Ch 15: 22, 44, 48, 56, 61, 62, 68, 74 |  |  |
| Ch 11: 13, 25, 41, 44, 46, 55, 58, 59 | Ch 16: 21, 27, 34, 48, 61, 64, 66, 76 |  |  |
| Ch 12: 15, 21, 37, 41, 54, 59, 64, 65 | Ch 17: 16, 39, 52, 57, 61, 66, 73, 75 |  |  |
| Ch 13: 16, 51, 56, 63, 65, 70, 74, 77 | Ch 18: 26, 43, 48, 53, 54, 59, 62, 67 |  |  |
| Ch 14: 15, 31, 35, 56, 59, 67, 74, 76 | Ch 19: 24, 39, 42, 47, 54, 60, 64, 67 |  |  |
| Ch 32: 29, 42, 51, 54, 57, 63, 67, 72 |                                       |  |  |

# Schedule

| week | date    | chapter   | covered material                    |
|------|---------|---|-------------------------------------|
| WEEK | 09/15   | chapter   | (1) Introduction                    |
| 1    | 09/18   | Ch 1 - 5  | (2) Significant figures             |
|      | 09/22   |   | (3) Motion, Force and Newton's Laws |
| 3    | 09/25   | Ch 6  | Work, Energy, and Power             |
|      | 09/29   | Ch 7  |                                     |
|      | 10/02   | holiday   | Conservation of Energy              |
| 4 -  | 10/02   | Ch 8  | Gravity                             |
|      | 10/09   | holiday   | Gravity                             |
|      | 10/03   | Ch 8  | Gravity                             |
| 5    | 10/15   | CITO  | Gravity                             |
|      | 10/20   | Ch 9  | Systems of Particles                |
| 6    | 10/23   | Ch 10   | Rotational Motion                   |
|      | 10/23   |   |                                     |
| 7    | 10/27   | Quiz or makeup class  First midterm exam (Ch 5 – 9) |                                     |
|      | 11/03   | Ch 10   | Rotational Motion                   |
| 8    | 11/05   | Ch 11   | Angular Momentum                    |
|      | 11/10   | Ch 12   | Static Equilibrium                  |
| 9    | 11/13   | CIT 12  | Static Equilibrium                  |
| 10   | 11/17   | Ch 13   | Oscillatory Motion                  |
|      | 11/20   | Ch 14   | Wave Motion                         |
|      | 11/24   | - Ch 32   | Interference and Diffraction        |
| 11   | 11/27   |   |                                     |
|      | 12/01   | Quiz or makeup c                                    | lacc                                |
| 12   | 12/01   | Second midterm exam (Ch 10 – 14, 32)                |                                     |
| 13   | 12/08   |   | Fluid Motion                        |
|      | 12/11   |   |                                     |
|      | 12/15   |   |                                     |
| 14   | 12/18   |   |                                     |
| 15   | 12/22   | Ch 16 - 19  | Thermodynamics                      |
|      | 12/25   |   |                                     |
|      | 12/29   |   |                                     |
| 16   | 01/01   |   |                                     |
| 17   | 01/05   |   |                                     |
|      | 01/08   | Quiz or makeup c                                    | lass                                |
| 18   | 01/12   | Final exam (Ch 15 – 19)                             |                                     |
|      | U-1, 12 | 5.6 (5.1.25 25)                                     |                                     |

Tuesday Friday