

PHY 4605: Introduction to Quantum Mechanics 2, Spring 2020

Meetings:

MWF 11:45 am - 12:35 pm (period 5), at NPB 1220.

Instructor:

Khandker Muttalib; NPB 2140; Tel: 392-6699; Email: muttalib@phys.ufl.edu

Office Hours: (Tentative)

MWF 10:40 – 11:30 am (period 4), at NPB 2140.

Textbook:

Introduction to Quantum Mechanics (3rd Ed): D. J. Griffiths and D.F. Schroeter (Cambridge University Press, 2018).

Homework and grading:

There will be daily homework assignments, due at the beginning of each class. (For medical or other excused absences, see me for approval to submit late.) There will also be three in-class, closed-book exams. The total grade will derive 40% from homework and 60% from the three exams.

Expectations:

You are expected not to copy any homework solution from anyone else, and not to ask for help until you have tried hard to do it all by yourself. If you fail to do after sincere efforts, you are *encouraged* to get help from fellow class friends, instructor, or anyone else. You are also encouraged to form small study groups and discuss homework assignments, within the above rule. I expect *each* of you to submit *all* homework assignments; they are an integral part of the course. If for any reason you miss an assignment, see me immediately for approval to submit late with partial credit. The course will cover a lot of material, and you should be prepared to invest a substantial amount of time.

Outline (Tentative):

1/06 – 2/07: Symmetries and conservation laws, time independent perturbation theory.

2/10: Exam 1

2/12 – 3/16: More on perturbation theory, variational principle, WKB approximation.

3/18: Exam 2

3/20 – 4/20: Scattering, quantum dynamics, entanglement.

4/22: Exam 3

Grading scale:

The final letter grades will be assigned according to the following criteria:

A: $\geq 90\%$
A-: 85 – 89 %
B+: 80 – 84 %
B: 70 – 79 %
B-: 65 – 69 %
C+: 60 – 64 %
C: 50 – 59 %
C-: 45 – 49 %
D+: 40 – 44 %
D: 35 – 39 %
D -: 30 – 34%
E: $\leq 29\%$

For current UF grading policies for assigning grade points, see
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Class attendance and make-ups:

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Academic Honesty:

All University of Florida students are required to abide by the University's Academic Honesty Guidelines and by the Honor Code, which reads as follows:

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

Cheating, plagiarism, or other violations of the Academic Honesty Guidelines will not be tolerated and will be pursued through the University's adjudication procedures.

Special Accommodations:

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <http://www.dso.ufl.edu/drc/>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be

presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Counseling:

Contact information for the Counseling and Wellness Center is
<http://www.counseling.ufl.edu/cwc/Default.aspx/> .

Course evaluation:

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/> . Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available at <https://evaluations.ufl.edu/results/> .