

PHY 4604 Introduction to Quantum Mechanics 1 [Fall 2020: Class Number 19901, 3 credits]

Tentative Syllabus (version of 26 August 2020)

<http://www.phys.ufl.edu/~meisel/PHY4604-Fall-2020.html>

Subject and Focus of the Course: This course is designed to provide the basic concepts of quantum mechanics with applications to examples in physics, chemistry, and other fields including quantum information. Briefly stated, the goal is to increase quantum literacy, so students develop a deeper appreciation of the technical jargon (like *entanglement*) and a sense of “what it is” and “what it is NOT”.

Inclusion, Diversity, and Equity: My intention is to provide each student with a safe, diverse, and inclusive atmosphere that affords a personalized opportunity to engage the material being presented. The present conditions mean each student is likely to be experiencing different boundary conditions and constraints while participating in this course. I will attempt to present the course material and graded assignments in a manner sympathetic to the unique conditions that each individual may be experiencing, while also being respectful of diversity of gender, sexuality, ethnicity, race, culture, socioeconomic status, age, and accommodations. To achieve this environment, I ask for suggestions and feedback from all students, as each perspective is important to me, and I will do my best to make adjustments that are needed.

Privacy Notice about Online Lectures: The class sessions may be audiovisually recorded and archived for students to use for review and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the “chat” feature, which allows students to type questions and comments live. The chat will not be recorded or shared. **As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited. In other words, the materials posted on the UF Canvas course page are for the registered students only and are not to be distributed or shared by any other means.**

Instructor: Mark W. Meisel (*he/him*), Department of Physics, University of Florida

Office: NPB 2358, Tel: 392-8867; **Lab:** NPB B133, Tel: 392-9147; **Email:** meisel@phys.ufl.edu

Office Hours: posted online, <http://www.phys.ufl.edu/~meisel/schedule.htm>, and by appointment.

Note for COVID era: Office Hours will be held online via Zoom meetings configured by the Instructor.

Email Correspondence with Instructor: Instructor will attempt to respond, within nominally 24 hours, to email within the UF e-Learning system (ELS Canvas system) or from UF email accounts if the message contains the name of the student. Email will not be sent to email addresses outside the UF-domain (ufl.edu).

Prerequisites: PHY3101 or PHY3063 (essentially a version of Intro to Modern Physics) or equivalent **and** MAP2302 (Elementary Differential Equations) or equivalent. Linear Algebra? Mainly encountered starting in Chapter 3, and as noted in the footnote on page 91, read the Appendix before taking this plunge!

General Education: This course is part of the “Physical Science” General Education Requirement.

Textbook (required): *Introduction to Quantum Mechanics (3rd ed.)*, [David J. Griffiths](#) and [Darrell F. Schroeter](#), Cambridge University Press (2018) [webpage](#). Errata available from D. J. Griffiths's webpage.

Meeting Times and Method: Mondays, Wednesdays, and Fridays: 3rd period (09:35 am – 10:25 am) via Zoom meetings configured by the Instructor within the UF Canvas system. For the most part, the lectures will be delivered “Live” (synchronous) and recorded. The recording will be posted on Canvas, along with slides/notes generated during the lecture, and these materials will be uploaded by Noon on the day of delivery. Any student not attending the synchronous lecture is expected to review the entire recording for meeting the attendance requirement in asynchronous mode. **Any “In-Class (IC)” work is due by the start of the next class period and the timestamp of the email or submission will be used as the time-record for the work. Assignments submitted late will not be graded.**

Posting: Materials and information concerning the course, including important dates and an “in vivo” schedule, will be posted on the Course Webpage within the UF ELS Canvas system.

Attendance: Students are expected to attend lectures since material outside the textbook will be presented. Unless otherwise stated, all materials covered in the text and in class are relevant for any graded exercise. The established [UF Attendance Polies](#) will be followed.

Graded Material and Grading Policy:

Homework/Quizzes/In-Class (IC) Exercises: Homework problems, Quizzes, and In-Class (IC) Exercises will be assigned on a regular basis. Students are expected to work on the problems and submit their work individually. Work must be complete, concise, and clear for full credit. Each assignment will have a specified due date and time. **Assignments submitted late will not be graded.**

Final Exam: The Final Exam is not tentative and is **Final Exam (Group 17C): Thursday, 17 December 2020, 12:30 pm – 2:30 pm (12:30 hrs to 14:30 hrs)**. All Fall 2020 Final Exam and course activities must end by 5:00 pm (17:00 hrs) on Friday, 18 December 2020. Note: this Final Exam Group and time is a correction to a “typo” in the online course description which listed “Final Exam: 1/1/1901 @ 12:00 PM – 12:00 PM”.

Additional details about the UF grading policies can be found at found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Summary		Final Course Grade Scale
Homework	25%	A 85% - 100%
Quizzes	25%	A- 80% - 84.9%
In-Class (IC) Exercises	25%	B+ 75% - 79.9%
Final Exam	25%	B 70% - 74.9%
	-----	B- 65% - 69.9%
Total	100%	C+ 60% - 64.9%
	-----	C 55% - 59.9%
		C- 50% - 54.9%
		D+ 45% - 49.9%
		D 40% - 44.9%
		D- 35% - 39.9%
		E 0% - 34.9%

Make-Up of Graded Material: Consistent with university policies described elsewhere ([here](#)), students will be allowed to make-up graded material. In most circumstances, the reason for the make-up will need to be documented by a note typically from a medical doctor, an attorney, or a UF official. Notes from family members are not acceptable. When possible, the student should inform the Instructor in advance of absences or delays in completing graded assignments.

Academic Honesty: Each student is expected to generate graded work by an individual and original effort and (e.g. usually a zero grade is given on the assignment). Please review the University Policies on Academic Honesty, and links are <https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/> and <http://www.dso.ufl.edu/sccr/>. Note that the process is one that involves the faculty member and the students:

“Academic honesty and integrity are fundamental values of the University. Students commit to holding themselves and their peers to the high standard of honor required by the Student Honor Code. Any Student who becomes aware of a violation of the Student Honor Code is encouraged to report the violation to the appropriate University Official.”

Accommodations and Advising: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://disability.ufl.edu/>) 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.

Advising and Counseling: Due to the nature of the environment at the university, it is not uncommon for students to experience stressful situations, and “study harder” sometimes does not seem to work. If you find yourself in this situation, you are encouraged to seek confidential counseling, see: <http://www.counseling.ufl.edu/cwc/>.

Incomplete Policy: A grade of incomplete is typically given to students who endure a situation in which they are incapable of completing the coursework. The I-grade is not to be given to students who are simply dissatisfied with their performance in the course. If you find you are in a situation that might qualify you for an I-grade and you want to pursue this potential option, then you must contact the Instructor as soon as possible. A PDF of the policy is posted at: <http://www.phys.ufl.edu/downloads/gradepolicy.pdf>.

Final Exam and Special Notes about the Syllabus: Please note that the dates for all graded materials, except the Final Exam, are TENTATIVE. The schedule will be finalized during the course and will be announced in class and posted to the “*in vivo*” schedule and updated on the course UF ELS Canvas page.

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Comments on Knowing Your Grades: It is expected that graded material will be returned to each student in a timely fashion, usually at the start of the first class period after which it was submitted. In most instances, the material and rubric will be reviewed during a lecture. After the review, if a student has any question about the grading of the work, please arrange for a timely meeting with the Instructor to review the grading. Students should keep records of the materials submitted as graded exercises. The UF ELS Canvas site is used to electronically post the grades, <http://elearning.ufl.edu/>. If you have any questions about your points on any material or for the course, please contact the Instructor.

General Classroom Behavior: Please avoid having distracting audio or visual events occur during class.

Course Evaluations: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.