

Physics330 – Quantum Field Theory I – Fall 2025
Course Arrangements
Michael Peskin

This sheet gives the basic arrangements by which the course Physics 330 will be run this fall. If you have any issues or questions, please feel free to email me at the contact information below.

Course Web Site

The course has a dedicated web site at

<https://s3df.slac.stanford.edu/people/mpeskin/Physics330/>

This site gives the planned schedule of lectures. The lectures will closely follow the textbook “An Introduction to Quantum Field Theory”, by Peskin and Schroeder.

The problem sets and quizzes (see below) and their solutions will be posted on the course web page. The problem sets will also appear on Canvas, but you should consider the web page the authoritative version. Please email me if you feel that there are errors in the problem sets. If there are corrections, I will post the most current version on the course web site. The course web site also has links to recommended reference books. Many of these are available from the Stanford Library in electronic editions; please follow the links to SearchWorks.

Contact Information

Course Instructor: Michael Peskin
office: SLAC bldg 48, rm. 221 and Varian 162
email: mpeskin@slac.stanford.edu
office hours: Varian 162, by arrangement

The best way to contact me is always by email: mpeskin@slac.stanford.edu . I am usually at SLAC, or working from home in Sunnyvale. But I am happy to meet you in Varian – or by Zoom – at a time convenient for you. Please email me for an appointment.

CA's: Gowri Sundaresan
email: gowrisun@stanford.edu
office hours: Thursday, 10:00am - 1:00pm GESB 131,
and by arrangement

Jessica Yeh
email: ycy@stanford.edu
office hours: Wednesday, 1:00pm - 4:00pm, STLC 115,
and by arrangement

Lectures

The lectures in the course will be given on Tuesdays and Thursdays, 1:30-2:50 pm, in room 60-109, on the Main Quad next to Mem Church.

When I teach, I normally give over the first 15 minutes to questions from the class. I will assign 2 students to ask questions at the beginning of each lecture. Of course, anyone else who has a question or discussion item can also contribute. Also, I would be happy if students would interrupt me during the lectures. Please take this seriously. The more interactive the class is, and the slower I go, the more you will learn.

Problem Sets

Physics 330 will have weekly problem sets, handed out at the web site on Thursdays and due on the following Thursday at midnight.

The main goal of the problem sets is to let you actively engage with the course material. This is the best way to learn. Problem sets will not be graded severely; see below. But if you do not do them, you will get only superficial knowledge from this course.

I strongly encourage you to form a homework group with your friends and collaborate on the problem sets. This will also give you a chance to discuss the course material with others. (If you have difficulty finding homework collaborators, please ask me to help you.) The best approach is start working on the problem set, then discuss all of the difficult issues with your group, then write up the solution yourself. Please do not simply copy someone else's solution. If you use any AI assistance in a problem set solution, please acknowledge it.

Make a pdf of your solution and turn it in on Gradescope. Problem sets will be graded by weight, not by detailed content, on a 0–1–2 scale. I will write a detailed solution set for each problem set. You should consult either of me or one of the CAs if you have difficulty making your solution agree with the model. Any student with all 2's on the problem sets is guaranteed a B in the course. To get a higher letter grade, you will need to take the quiz and final exam.

In previous years, some students have put off the first problem sets, intending to catch up later in the term. This is always a big mistake. The problem sets in the course are difficult, and they become harder if you get out of sync with your classmates. Please try to hand in each problem set on time.

Quizzes and Exam

There will be a take-home final exam in Physics 330, and there will also be a midterm Quiz. In both cases, these will be take-home exams. These will actually be graded seriously and will count toward your letter grade. The Quiz and the Final will be posted on the course web site and on Canvas. I expect you to work on the Quizzes and Final by yourself. To solve the problems, you can use any reference materials you can find, but please do not discuss the questions with any other human—except that you can email me for clarifications or hints. I would prefer that you not consult AI's; in my experience, they will give you equations that are superficially relevant to the solution but are not precisely correct.

Stanford has an honor code for graded papers. You are on your honor to upload your Quiz solution to Gradescope within 24 hours after you download the Quiz and, similarly, to hand in the Final by the designated time. You must write on your solution "I acknowledge the Stanford Honor Code." and sign it.

The Quiz will be handed out on a Thursday. I would like to collect all of the solutions to a Quiz by the following Tuesday. If this is impossible for you, please email me and we will make another arrangement.

The Final will be handed out on the final day of the course and will be due just after the time Stanford selects for an in-class final exam. If this arrangement does not work for you, please let me know.