

Lecturer:

Prof. Gil Paz, Room 360 Physics Building
Phone: 313-577-2756
e-mail: gilpaz@wayne.edu

Lecture Time:

Tuesday, Thursday 11:35 am - 1:00 pm, Room 177 Physics Building.

Suggested Text:

Michael E. Peskin and Dan V. Schroeder, An Introduction To Quantum Field Theory.

Office Hours:

Any time by appointment.

Grading:

- Homework (70% of the total grade). Weekly assignments will be handed each Thursday. They must be handed back after two weeks in the Thursday lecture. The deadline is *firm*. Late homework will not be accepted. You should submit 80% of the homework to get a passing grade.
- Final project (30% of the total grade). The final project will consist of a short paper \approx 5 pages + 20 minutes talk at the end of the semester. The topic should be chosen from a list of projects I will provide.

Grade: The grade scale is as follows:

Letter grade	Score	Letter grade	Score
A	91-100	B-	70-74
A-	85-90	C+	65-69
B+	80-84	C	60-64
B	75-79	F	< 60

Topics:

- Classical field theory
- Canonical quantization of spin-0 field
- Canonical quantization of spin-1/2 field
- Canonical quantization of spin-1 field
- Interacting quantum fields
- Applications: elementary QED processes
- Introduction to radiative corrections