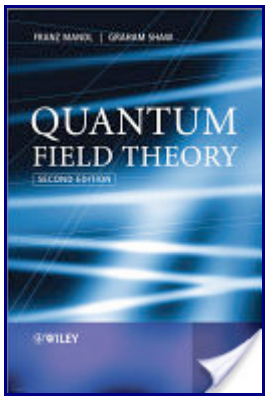
Course Outline

Course: Phys 731 Quantum Field Theory,I Section I
Instructor: Dr Alakabha Datta
Office: 209 Lewis Hall
Meeting: MWF 11 am- 11.50 am
Office Hours: By Appointment
Email:datta@olemiss.edu, datta@phy.olemiss.edu
Phone: (662) 915-5611
Course homepage: Check Blackboard.

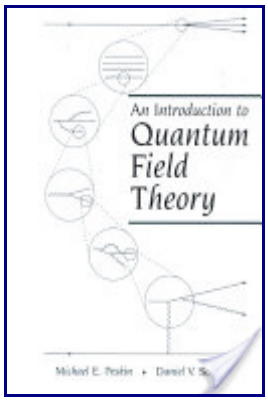
Book



Franz Mandl, Graham Shaw

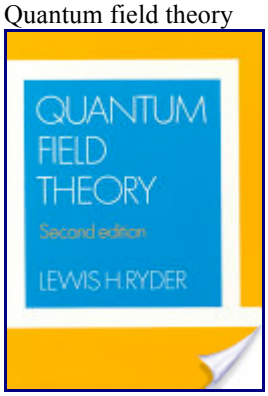
Recommended Books:

Introduction to quantum field theory



Michael Edward Peskin, Daniel V. Schroeder

Quantum field theory



Lewis H. Ryder

Others: Quantum Field Theory by Roman, Bailin and Love, Bjorken and Drell, P. Ramond, Paul H. Frampton, C. Itzykson and J-B Zuber etc

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Course Goals: Learning to apply the basic postulates and rules of Quantum Field Theory and application to various processes including Quantum Electrodynamics

Independent study: Every student will be asked to prepare a talk on some given topic related to QFT

Marking:

Homework: 50 %

Talk: 25%

Final Exam: 25% (Take home)

Final Exam: Monday Dec 9, noon

An overall course average of the following percentages will guarantee the corresponding letter grade:

90% A

80%	B
70%	C
60%	D

Topics Covered in course: Topics will be taken from chapters 1-9 in the book. Topics include quantization of the scalar, spinor and vector field, Feynman graphs, tree and loop level processes in Q.E.D.

Attendance: There is no attendance requirement. However if you miss an exam or cannot turn in HW on time because of illness I will require a doctor' note. If you will away on other reasons inform me prior to your absence and get a note if applicable.

Academic Integrity: We will follow the University's policy of academic integrity (M-book). Violations of these policies will result in a failing grade and other disciplinary actions. In particular you are not allowed the use of the Instructor's Solution Manual.