

## Course Outline

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Course: Quantum Mechanics II

Instructor: Dr Alakabha Datta

Office: 121-B Lewis Hall

Meeting T-TH 9.30 am to 10.45 am at Lewis 104

Office Hours: By Appointment. No drop in without prior appointment.

Email: [datta@olemiss.edu](mailto:datta@olemiss.edu),

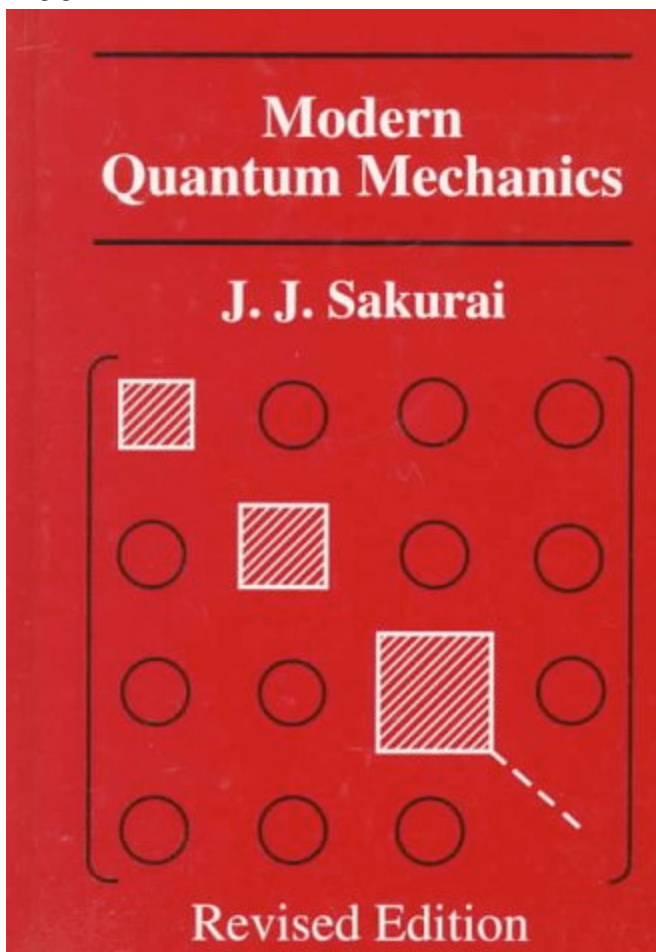
[datta@phy.olemiss.edu](mailto:datta@phy.olemiss.edu)

Phone: (662) 915-5611

Course homepage: Check Blackboard.

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## Book



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Course Goals and learning Outcome: After completing the course you will know how to apply the basic postulates and rules of Quantum Mechanics learnt in QM 611 to solve problems in various areas of research.

Independent study: The course will also involve solving problems that will require students to research material on published journals to complete the project. The purpose of this is to help the student acquire skills to pursue independent research. The students will also complete a report on a topic of current research interest.

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Marking:

Homework: 25 %: No homework will be accepted late. This is a strict policy.

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Exam 1: Feb 16<sup>th</sup> Thursday: In Class 10%

Mid Tem Exam: Week of March 4-9, 2 hours, Outside Class: 15%

Exam 2: April 5<sup>th</sup> Thursday: In Class 10%

Final Exam: Thursday May 10<sup>th</sup> at 8 am: 3 hour: 25%

Mid Term Report: Typed, at least 3 pages on WKB Approximation, due March 20<sup>th</sup>: 15%

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

90%	A
85% to 90%	B+
80% to 85%	B
75% to 80 %	C+
70% to 75%	C

60% to 70% D

< 60% F

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Topics Covered in course: Topics will be taken from chapters 4-7 in the book. Topics include symmetry in Quantum Mechanics, identical particles, perturbation theory and scattering theory.

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's note. If you will away on other reasons inform me prior to your absence and get a note if applicable.

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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.