

PHY 7097 Molecular Magnetism

(Fall 2019: Class Number/Section number "Department Controlled (24203?)", 3 credits)

To enroll: Please contact Ms. Ashley Martin <ashleymartin@ufl.edu>

Tentative Syllabus (Version of 19 August 2019)

<http://www.phys.ufl.edu/~meisel/PHY7097-Fall-2019.html>

Instructor:

Mark W. Meisel, Department of Physics, University of Florida

Office: NPB 2358, Tel: 392-8867, Fax: 392-3591

BEST Place to Find Me: NPB B133, Tel: 392-9147, Email: meisel@ufl.edu

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

Email Correspondence with Instructor:

Professor Meisel will attempt to respond, within 24 hours, to email (from UF email accounts) if the message contains the name of the student. Email will only be sent to UF Email addresses.

Prerequisites:

Graduate level standing and interest in extending insight in magnetic systems.

Meeting Times and Place (as of 13 August 2019):

Tuesdays: Period 10 - 11 (5:10 PM - 7:05 PM) in NPB 1220.

Thursdays: R | Period 10 (5:10 PM - 6:00 PM) in NPB 1220.

Students are expected to attend the sessions.

Textbook:

No official textbook for this course. Materials are to be posted online or generated by the students.

Posting:

Materials and information concerning the course, including important dates and an "*in vivo*" schedule will be posted on the Course Webpage, see <http://www.phys.ufl.edu/~meisel/PHY7097-Fall-2019.html>, and some materials will be posted on the "E-learning" site for this course, see Course Webpage for link.

Subject and Focus of the Course:

This course is designed for student participation, and consequently, the material will focus on addressing the points of interest to the students. After some introductory materials are discussed, the present literature will be explored using a skeptical perspective. The goal is to drill into a topic and expand the understanding of the participants in the class. Consequently, standard professorial blathering-type lectures will not drive the course. Ideally, students will form time-dependent teams of 2 or 3 with interdisciplinary mixing. A "lab" environment of peer-driven learning will emerge and the instructor will facilitate the process and expand his own horizons. In summary, the question to be answered is "What do you want to know?" The topics will involve theoretical and experimental approaches focused on the magnetism of molecules.

For example: what is a "qudit"? How is it to be used? What are the experimental techniques to be used and how do these really work? Can one theoretically understand it and predict its behavior? What theoretical tools are used in this manner? What are the strengths and weaknesses of specific experimental and theoretical approaches? What can these tools yield and what are their limitations?

Graded Material:

"Project", pre-approved by instructor, and classroom presentation (20 min). "Intellectual Merit" (40%)

Outreach "spot" (the elevator speech) or "K-8 activity". "Broader Impacts" (40%)

One-pager about where you started and where you finished the wild ride. (20%)

Attendance:

Attendance in class is definitely expected. Please be professionally courteous and inform, in advance if possible, the instructor when you are not able to attend.

Grading:

A: work expected from a student moving on path toward a PhD degree.

B: work expected from a student moving on a path toward a MS degree.

C: work expected from a highly motivated undergraduate student.

If you have any questions about your grade, please ask. The UF grade rubric and rules are posted online, <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Make-Up of Graded Material:

Only in the event of extraordinary circumstances will students be allowed to take a make-up graded material. The only way students will be allowed to take a make-up exercise is if they have a legitimate excuse, accompanied by some documentation 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 from graded assignments.

Academic Honesty:

Each student is expected to generate graded work by an individual and original effort. It is understood that some students benefit from “group study”, and in fact, this approach will be used in this course. Please acknowledge the contributions of members in your teams. Any violation of this policy will be treated according to UF policy. Please review the University Policies on Academic Honesty, and helpful links are: <http://www.dso.ufl.edu/scsr/> and <https://dso.ufl.edu/resources/student-handbook/>.

“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://www.dso.ufl.edu/drc/>) 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:

Final Exam Period for this course: 09 Dec 2019 @ 10:00 AM - 12:00 PM (Noon). There will NOT be a Final Exam, but ALL GRADED WORK MUST BE COMPLETED and SUBMITTED by NOON on Monday, 09 Dec 2019.

General Classroom Behavior:

The reading of newspapers, the working of puzzles, and the use of electronic devices such as cell phones, laptops, and tablets are not permitted unless approved for use to make classroom accommodations. Please mute your personal electronic device, and if you need to attend to an emergency, please quietly exit the classroom to handle the text message or phone call in the atrium or hallway.

GatorEvals (<https://gatorevals.aa.ufl.edu/>)

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/>.