PHZ 4404 Intro Solid State Physics "*in vivo*" schedule Spring 2022 **Mark W. Meisel**

black text: projected and tentative; **purple text: past**; **blue text: hotlinks**;
red text important announcements; **green text: final exam window**

Note: Schedule is "projection" and revisions will be announced in class and subsequently posted online. **Immediate schedule is approximately correct, whereas the timing for the future is a COARSE estimate.**

Key: ICyz-mmdd = In-class graded exercise number yz – scheduled on mm(month)dd(day),
ICyz-mmdd-TH = see above but TH means "take-home" to submit on Canvas,
HW = Homework, LecXX = Lecture XX, F2F = Face-to-Face

Expectation is that you will maintain the pace of reading/working in the textbook.

Week 01	Jan 03 (LecNA)	Semester not yet started.
	Jan 05 (Lec01)	Class Starts, Introduce the Course. Aspects of Ch 1.
	Jan 07 (Lec02)	**IC02-0107-TH** assigned and due by start of next class. Finish Ch. 1. Start Ch. 2. Check ELS gradebook to see your grade(s)!
Week 02	Jan 10 (Lec03)	**HW1-0110 described. Due at start of class on Wed. Jan 19.** Ch. 2 continue.
	Jan 12 (Lec04)	Finish Ch. 2. Start Ch. 3.
	Jan 14 (Lec05)	Start and Finish Ch. 3.
Week 03	Jan 17	No class – Martin Luther King Jr. National Holiday.
	Jan 19 (Lec06)	HW1-0110 hardcopy due at the start of class.
	Jan 21 (Lec07)	Start Ch. 4.
Week 04	Jan 24 (Lec08)	**HW2-0124 described. Due at start of class on Fri. Feb 04.** HW1-0110 returned. Finish Ch. 4. Start Ch. 5.
	Jan 26 (Lec09)	Finish Ch. 5. Start Ch. 6.
	Jan 28 (Lec10)	almost finish Ch. 6.
Week 05	Jan 31 (Lec11)	Finish Ch. 6. Start/Finish Ch 7. Start/Finish Ch. 8. **Reminder: Deadline for first Seminar/Colloquium Report Mar 04.**
	Feb 02 (Lec12)	Start Ch. 9.
	Feb 04 (Lec13)	**HW2-0124 hardcopy due start of class.** Continue Ch. 9.

Week 06 Feb 07 (Lec14) **HW3-0207 described. Due at the start of class on Fri., Feb 18.**
Continue-Finish Ch. 9.

Feb 09 (Lec15) Start and Finish Ch. 10.
IC09-0209-TH by online by start of class on Fri., Feb. 11.
Term Paper Part A (TPA-0209) described/assigned and due (online submission) by start of class on Friday, Feb 25.

Feb 11 (Lec16) Start Ch. 11.

Week 07 Feb 14 (Lec17) Ch. 11.
Reminder: Deadline for first Seminar/Colloquium Report Mar 04.

Feb 16 (Lec18) Ch. 12 – Ch. 13. Lecture *"Scattering in a Nutshell"*.

Feb 18 (Lec19) **HW3-0207 hardcopy due start of class.**
Ch. 14 (scattering).

Week 08 Feb 21 (Lec20) **HW4-0221 described. Due at the start of class on Fri., Mar 04.**
Finish *"Scattering in a Nutshell"*, thereby completing
Parts IV and V of the textbook (or the "Form follows function" parts).
HW03-0207 returned.

Feb 23 (Lec21) Start Ch. 15.

Feb 25 (Lec22) Finish Ch. 15. Review Ch. 16.
TPA-0209 due by start of class, online submission.

Week 09 Feb 28 (Lec23) **Term paper topics instructor approval week, may require meeting with student.**
Start Ch. 17.

Mar 02 (Lec24) **TPA-bis-0302 – Clarifications needed from some for full approval of term paper topic and sources of information. Due by the start of class on Monday, 21 March.**
Continue Ch. 17.

Mar 04 (Lec25) **Deadline for first Seminar/Colloquium Report due by 10:40 hrs.**
HW4-0221 hardcopy due start of class.

Week 10 Mar 07 – Mar 09 – Mar 11: UF Spring Break – No classes.

[Note: The American Physical Society (APS) March 2022 Meeting is in Chicago during Week 11.]

Week 11 Mar 14 (Lec26) Term Paper Prep and Seminar-Colloquium time recovery
HW05-0321 posted early, to be discussed on Mar 21, and still due at the start of class on Fri., Apr. 01.

Mar 16 (Lec27) Term Paper Prep and Seminar-Colloquium time recovery

Mar 18 (Lec28) Term Paper Prep and Seminar-Colloquium time recovery

Week 12 Mar 21 (Lec29) **HW05-0321 described. Due at the start of class on Fri., Apr. 01.**
Review Highlights from APS March Meeting.
Review schedule for the remainder of the course.
Discuss options for timing of 1:1 Oral Exam period.
Discuss options for special topics before course ends.
Summary of topics in Ch.17 and 18.

Mar 23 (Lec30) Start Magnetism: Ch. 19-21.

Mar 25 (Lec31) Continue Magnetism Ch. 19-21.

Week 13 Mar 28 (Lec32) Finish Magnetism Ch. 19-21. Start Ch. 22-23.

Mar 30 (Lec33) Continue Ch. 22-23 and finish discussions directly from textbook.

Apr 01 (Lec34) **HW5-0321 hardcopy due start of class.**
Preamble for Superconductivity – DEFINITION and
a technique for first-look of small superconducting samples.

Week 14 Apr 04 (Lec35) Special Topic 1: Superconductivity

Apr 06 (Lec36) Special Topic 1: Superconductivity

Apr 08 (Lec37) Special Topic 2: Superconducting Devices

Week 15 Apr 11 (Lec38) Special Topic 2: Superconducting Devices

Apr 13 (Lec39) Special Topic Y: _____

Apr 15 (Lec40) Special Topic Z: _____

Week 16 Apr 18 (Lec41) **Term Paper due by start of class.**
Assemble "Solid State Jargon List" (SSJL).
Method for setting time for Oral Exam.

Apr 20 (Lec42) **Last Day of Lecture.**
All Sem/Col Reports due by start of this class period.
Discuss qualitative and quantitative "SSJL".

Apr 22 **No Class, Reading Day.**
Deadline for Course Evaluations.
Students can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/.

Final Exam (Group 16D) is NOT tentative but is fixed by the registrar:
Final Exam (Group 28D): Thursday, 28 April 2022, 3:00 pm – 5:00 pm (15:00 hrs - 17:00 hrs).
All course activities must be completed 5:00 pm (17:00 hrs) on Friday, 29 April 2022.