

Updated Schedule (as for 03/25/20)

Table 2: The list of lectures and respective chapters in McQuarrie. The homework due dates are shown in bold.

#	Class/HW due	Day	Lecture	Chapters
XXX	03-27-20	F	<i>Recalibration Period for Education Equity</i>	–
L13	03-31-20	T	Introduction to Approximation Methods ^a	CH 7
L14	04-03-20	F	Multielectron Atoms	CH 8
B	04-07-20	T	No Class	
B	04-10-20	F	No Class	
L15	04-14-20	T	Multielectron Atoms - Terms	CH 8
L16	04-17-20	F	Diatomic Molecules I	CH 9
L17	04-21-20	T	Diatomic Molecules II	CH 9
L18	04-24-20	F	Polyatomic Molecules I - Hybrid Orbitals	CH 10
L19	04-28-20	T	Polyatomic Molecules II - Hückel Model	CH 10
L20	05-01-20	F	Molecular Spectroscopy - Introduction	CH 13
L21	05-05-20	T	Advanced Molecular Spectroscopy	PowerPoint
L22	05-08-20	F	Computational Chemistry & Molecular Spectroscopy I	Assignment ^b
L23	05-12-20	T	Computational Chemistry & Molecular Spectroscopy II	Assignment ^b
B	05-15-20	F	Reading Day	
FIN	05-19-20	T	Final Exam (Parts 3 and 4, 11.30 - 1.30 pm)	

^a There is no class on this day, however I will still post the lecture in the morning. I will hold Office hours on Thu to answer questions regarding the lecture.

^b Exemplary topics for the assignment:

1. Force Fields and Molecular Dynamics Simulations
2. Hartree-Fock and Electron Correlation
3. Density-Functional Theory (1998 Nobel Prize in Chemistry)
4. QM/MM techniques for large biomolecules (2013 Nobel Prize in Chemistry)
5. Gas-phase spectroscopy of biomolecules
6. Spectroscopic methods in several kelvins
7. Raman and other types of vibrational (non-IR) spectroscopy
8. Spectroscopic methods in astrophysics and astrochemistry