Nuclear magnetic resonance has had a tremendous impact in science during the last 60 years, and is used regularly in all branches of chemistry, medicine, engineering, biology and physics. This course is intended for advanced undergraduates and/or graduate students with the goal of learning the basic tenets of nuclear magnetic resonance as a modern technique. The course will focus on how nuclear spins interact with condensed matter. Topics to be covered include: NMR spectra and relaxation, pulse techniques, dipolar interactions, Knight shifts and chemical shifts, dipolar broadening and motional narrowing, spin lattice relaxation and decoherence, relation to muon spin rotation, electron spin resonance, and magnetic resonance imaging, and NMR as a probe of correlated electron systems, including magnetism and superconductivity.