

Class Schedule - Spring 2010

Physics

598 **Special Topics in Physics** credit: 1 to 4 hours.

Subject offerings of new and developing areas of knowledge in physics intended to augment the existing curriculum. See Class Schedule or departmental course information for topics and prerequisites. May be repeated in the same or separate terms if topics vary.

CRN	Type	Section	Time	Days	Location	Instructor
52571	lecture	TPH	12:30 PM - 01:50 PM	TR	room 136 Loomis Laboratory	Fradkin, E
Restricted to Graduate - Urbana-Champaign. 4 hours Topological Phases in Quantum CMTOPLOGICAL PHASES IN QUANTUM CONDENSED MATTER. This course will cover current developments on topological phases in condensed matter physics, including: the theory of the fractional quantum Hall states, spin liquids, topological insulators and superconductors, effective field theories of topological phases, quasiparticles, fractional statistics (Abelian and non-Abelian), experimental detection of quasiparticles, quantum interferometers and the manipulation of quasiparticles, topological phases and topological quantum computing, quantum entanglement at quantum criticality and in topological phases. The course material will consist primarily of a review of recent literature in leading journals.						