

Spring '98 -- Prof. Wesley Smith

PHYSICS 301 -- Physics Today/Undergraduate Colloquium

Description: A series of weekly presentations and discussions of current research topics in physics by the scientists involved in those studies. This course is designed to expose students to the topics and excitement of the research frontier. Each lecture will be given by a different researcher who will describe his/her field and his/her own work. Opportunities will be offered for students to become involved in research work. This course is designed to help foster contact between students and faculty to enable opportunities for independent study, directed study, or senior thesis projects with faculty in subsequent semesters. Students will learn about a broad variety of physics research and how this research is carried out. Further information may be found on the course web page: <http://hep.physics.wisc.edu/wsmith/p301syll.html>.

Credits: 1 Credit, may not be repeated for credit.

Prerequisites: Physics 207-208 or equivalent.

Meetings: Tuesdays, 1:20 - 2:10, 1313 Sterling.

Recommended Text: Invitation to Contemporary Physics, Q. Ho-Kim, N. Kumar & C.S. Lam, World Scientific Press, 1991.

Coursework: Describe a particular piece of physics research being actively pursued this year. The paper is due in class on May 5. The topic selected with a one page outline must be submitted in class on April 7. The paper must be typed, use proper footnotes and have a total length of not less than 7 and not more than 10 pages. The primary resource for this paper is the Physics Dept. Library. The librarian, Kerry Kresse, will be able to assist you. Honors students must proceed under the direction of a faculty member of their own choice.

Office Hours: Tues. & Thurs., 11:00 - 12:00, or appointment, 4275 Chamberlin, 262-4690.
wsmith@hep.physics.wisc.edu, <http://hep.physics.wisc.edu/wsmith/>

Schedule:

01/22/98	-- Introduction/High Energy Physics	-- Smith
01/27/98	-- Chaos and Time Series Analysis	-- Sprott
02/03/98	-- The Big Bang	-- Timbie
02/10/98	-- Superconductivity	-- Joynt
02/17/98	-- Nanowires & Scanning Tunneling Microscopy	-- Himpfel
02/24/98	-- Atomic Scattering from Monolayers	-- Bruch
03/03/98	-- Plasma Dynamo & Chaotic Magnetic Fields	-- Prager
03/17/98	-- The Interstellar Medium	-- Cox
03/24/98	-- Nuclear Physics	-- Knutson
03/31/98	-- Neutrino Astronomy	-- Morse
04/07/98	-- Elementary Particles & Masses	-- Han
04/14/98	-- Superconducting Materials & Applications	-- Larbelestier
04/21/98	-- X-ray Astronomy	-- McCammon
04/28/98	-- TBA --	
05/05/98	-- TBA --	