

# Neutron Scattering in Quantum Condensed Matter Physics

A Multi-University Online Graduate Course

NEW  
COURSE!  
FALL  
2012

## Course Description:

The Neutron Sciences Directorate (NScD) and Joint Institute for Neutron Sciences (JINS) at Oak Ridge National Laboratory (ORNL) are proud to announce a new graduate distance learning course, to be taught collaboratively by expert professors from six contributing universities as well as ORNL scientists. The course provides a solid foundation to understand the use of neutron scattering as a probe of atomic-scale structure and dynamics of quantum condensed matter. The course covers the theoretical background, experimental techniques and methods of analysis. The course will be taught from the lecturers' institutions and will be available on-line with real time interaction for students participating at the live conferencing venues; as well as via streaming. Graduate students and postdocs in the fields of Condensed Matter Physics and Materials Science are invited to enroll or register.

## Pre-Requisites:

Quantum Mechanics, Statistical Physics, and Condensed Matter Physics at the graduate level.

## Schedule:

Tuesdays and Thursdays 4:00 pm - 5:15 pm, Tuesday 9/4/2012 through Thursday 12/7/2012

## Instructors:

- Collin Broholm, Johns Hopkins University (JHU)
- Takeshi Egami, University of Tennessee (UT)/ORNL
- Young S. Lee, Massachusetts Institute of Technology
- Seunghun Lee, University of Virginia
- Stephen Nagler, ORNL/UT
- Roger Pynn, Indiana University
- Sunil K. Sinha, University of California, San Diego

## Planning Committee:

- Collin Broholm, JHU
- Takeshi Egami, UT/ORNL
- Meiyun Chang-Smith, Course Coordinator, NScD/JINS, changsmithm@ornl.gov

<http://jins.tennessee.edu/course2012>

<http://neutrons.ornl.gov/education/qcmp>

