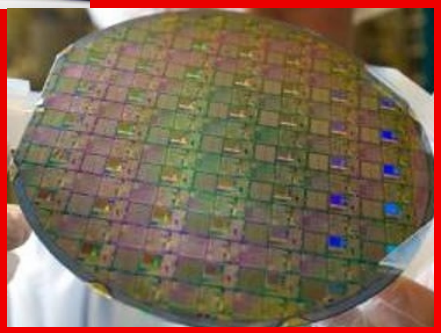
RUTGERS Institute for Advanced Materials, Devices and Nanotechnology



Instrumental Analysis and Materials Characterization

Institute for Advanced Materials, Devices and Nanotechnology

COURSE #: 01:160:191
COURSE #: 16:160:541

Register:
http://sis.rutgers.edu/soc/

Email: iamdn@rci.rutgers.edu

2013 Summer Session Begins: May 28, 2013

This course will present an overview of thin film materials characterization with an appropriate selection of analytical methods for imaging and materials characterization in research. This course is open to advanced undergraduates, graduate students and science professionals. It will be especially useful to those who make use of x-ray spectroscopy, ion beam spectroscopy, electron beam SEMs, AFMs and optical spectroscopies. Each of these instruments is available at Rutgers.

Instrumental Analysis and Materials Characterization

SUMMER SESSION: MAY 28 – JUNE 27

TIME: BEGINS AT 5:30 PM **LOCATION: CCR 201**

COURSE #: 01:160:191/ 16:160:541

R&D in physical sciences and engineering depends on atomic scale understanding of materials, which depend on a sophisticated array of technical and complex instrumentation. Progress is accomplished by appropriate use of analytical tools.

IAMDN is offering a short course during the 2013 Summer Session. This 1.5 CR course provides an overview of the groundwork of basic material characterization tools and the capabilities of the various analytical techniques accompanying the instrumentation. This course is designed for physics, chemistry and engineering students. It is open to advanced undergraduate students, graduate students as well as industry professionals and will be especially useful to those involved in technology incorporating thin film materials. Each of these instruments is available at Rutgers. Interested students can register online http://sis.rutgers.edu/soc/ or can contact IAMDN at iamdn@rci.rutgers.edu for more information.

Course Outline

5/28/2013	5:30 PM – 7:30 PM	Overview and Comparison of Spectroscopies	Prof. Feldman
5/30/2013	NO CLASS		
6/4/2013	5:30 PM – 7:00 PM	Ion Beam Spectroscopy	Prof. Gustafsson
6/6/2013	5:30 PM – 8: 30 PM	X-ray Spectroscopy	Prof. Garfunkel
6/11/2013	5:30 PM – 7:30 PM	Electron Imaging Methods (SEM)	Dr. Murali
6/13/2013	5:30 PM – 8:30 PM	Optical Spectroscopy	Prof. O'Carroll
6/18/2013	5:30 PM – 7:30 PM	Electron Imaging Methods (STEM)	Prof. Batson
6/20/2013	5:30 PM – 7:30 PM	Electron Imaging Methods (STEM)	Prof. Batson
6/25/2013	5:30 PM – 7:30 PM	Electron Imaging Methods (SEM)	Dr. Murali
6/27/2013	5:30 PM – 8:30 PM	Atomic Force Microscopy	Prof. Zou