This Week’s Departmental Events:

- **Retirement Party for David Cowgill**
  Thursday, June 14, 2012
  10:00am in the faculty lounge
  Coffee and donuts provided

- **CMET Seminar**
  Walter Richtering, RWTH Aachen University
  Thursday, June 14, 2012
  11:00am in 366CLB
  “Microgels as ‘Smart’ Ingredients in Composite Hydrogels and Mckering Emulsions”

CBE In the News:

- IGERT funding: NSF grant supports work in systems biology of cells in engineered environments

- Congratulations to Stefan Gaida who won the Best Poster award at the Metabolic Engineering Conference!

Facilities Notifications:

- Lovett Ave. will be closed from Monday, June 11th until Thursday, June 14th. For more information, please see:

- All aerosol cans (empty or full) are to be treated as hazardous waste from now on. They are to be submitted through the EHS waste pickup system. They should be bagged with a waste tag on the bag. They should not be put into the lab solid waste containers. They are NOT to be put into the general waste baskets. This is effective immediately.

- **Little Bob notification:** Due to the Chilled Water Shutdown next week, there will be **NO Air Conditioning in the building**. The Employee Fitness Center will be closed, however, the Hen House will be available for employees to access.

Jobs/Recruiting:

Available positions can be found on the Chemical & Biomolecular Engineering opportunity website
([http://www.che.udel.edu/biz/OpplIndex.html](http://www.che.udel.edu/biz/OpplIndex.html)), so be sure to check it regularly.
Prof. Richtering’s group is interested in structure and dynamics of complex polymer and colloid fluids. These materials are investigated by means of many different experimental techniques, especially light, neutron and X-ray scattering, microscopy, confocal fluorescence spectroscopy and rheology as well as computer simulations.

“Microgels as ‘Smart’ Ingredients in Composite Hydrogels and Pickering Emulsions”

Multi-sensitive microgels have special properties that can be controlled via the chemical composition as well as the morphology of the particle.

First we will discuss the incorporation of responsive microgels into hydrogels leading to nanocomposite gels. The structure of these composite gels is probed by small angle neutron scattering as well as by confocal fluorescence microscopy revealing information on the temperature-sensitivity of embedded microgel particles. We will discuss whether or not interpenetrating networks are formed. In addition, the diffusion of tracer molecules was investigated by means of 2-focus fluorescence correlation spectroscopy which allows for spatially resolved tracer diffusion measurements in complex environments.

Finally we will report on the unique behavior of microgels at fluid interfaces. Microgels are used to prepare stimuli-sensitive emulsions, the stability of which can be made pH- and temperature sensitive. However, these emulsions are distinctly different from Pickering emulsions stabilized by rigid particles. With microgels it is even possible to prepare stable emulsions with oppositely charged droplets.

Refreshments will be served.