2012 Boulder Summer School

Polymers in Soft and Biological Matter

Detailed Schedule

All lectures are in **Duane Physics Room G125**

Week 1, July 9 - 13

Monday, July 9th

8:30 - 9:00 **Leo Radzihovsky**
Welcome and Introductions

9:00 - 10:30 **Fyl Pincus**
Fundamental Forces I

10:30 - 11:00 Coffee break

11:00 - 12:30 L. **Mahadevan**
Introduction to Hydrodynamics I

14:30 - 16:00 **Alexander Grosberg**
Polymer Physics I

16:15 - 17:15 **Student Introductions and Self-Organization**

Tuesday, July 10th

9:00 - 10:30 L. **Mahadevan**
Hydrodynamics II

10:30 - 11:00 Coffee break

11:00 - 12:30 **Michael Rubinstein**
Polymer Physics II

14:30 - 16:00 L. **Mahadevan**
Hydrodynamics III

17:00 - 19:30 Cookout at Flagstaff Mountain, where we will be driven by busses at 5pm

Wednesday, July 11th

9:00 - 10:30 **Michael Rubinstein**
Polymer Physics III

10:30 - 11:00 Coffee break

11:00 - 12:30 **Noel Clark**
Liquid Crystals I

14:30 - 16:00 **Fyl Pincus**
Fundamental Forces II

19:00 - 20:00 **Soundbites I**
Room G125

Thursday, July 12th

9:00 - 10:30 **Noel Clark**
Liquid Crystals II
10:30 - 11:00 Coffee break
11:00 - 12:30 **Alexander Grosberg**
Polymer Physics IV
14:30 - 16:00 **Fyl Pincus**
Fundamental Forces III
19:00 - 21:30 **Poster Session I**
11th Floor Commons Room

Friday, July 13th

9:00 - 10:30 **Fred MacKintosh**
Semiflexible Polymers
10:30 - 11:00 Coffee break
11:00 - 12:30 **Noel Clark**
Liquid Crystals III
15:00 - 16:00 **Research Seminar**
18:00 - 19:00 **BBQ** *Sewall Hall*

Week 2, July 16 - 20

Monday, July 16th

9:00 - 10:30 **Eugenia Kumacheva**
Microfluidics
10:30 - 11:00 Coffee break
11:00 - 12:30 **Tom McLeish**
Polymer Dynamics I
14:30 - 16:00 **Sam Safran**
Surfactants and Membranes I
19:00 - 20:00 **Soundbites II**
Room G125

Tuesday, July 17th

9:00 - 10:30 **Tom McLeish**
Polymer Dynamics II
10:30 - 11:00 Coffee break
11:00 - 12:30 **Sam Safran**
Surfactants and Membranes II
14:30 - 16:00 **Tonya Kuhl**
Surfaces and Interfaces I
16:15-17:30 **Tonya Kuhl**
Surfaces and Interfaces II

Wednesday, July 18th

9:00 - 10:30 **Sam Safran**
Mixed Membranes and Rafts
10:30 - 11:00 Coffee break
11:00 - 12:30 **Dave Weitz**
Introduction to Colloids
14:30 - 16:00 **Tom McLeish**
Polymer Dynamics III
19:00 - 21:30 **Poster Session II**
11th Floor Commons Room

Thursday, July 19th

9:00 - 10:30 **Kurt Kremer**
Introduction to Computer Simulations I
10:30 - 11:00 Coffee break
11:00 - 12:30 **Fred MacKintosh**
Active Systems I
14:30 - 16:00 **Tonya Kuhl**
Introduction to Scattering Techniques
19:00 - 20:00 *Public Lecture* - **Dave Weitz**, *Duane Physics G1B30*

Week 2, July 16 - 20

Friday, July 20th

9:00 - 10:30 **Dave Weitz**
Introductions to Microscopy

10:30 - 11:00 Coffee break

11:00 - 12:30 **Kurt Kremer**
Introduction to Computer Simulations II

14:30 - 16:00 **Fred MacKintosh**
Active Systems II

18:00 - 19:00 **BBQ** *Sewall Hall*

Week 3, **July 23 - 27**

Monday, July 23rd

9:00 - 10:30 **Alexander Grosberg**
Biopolymers
10:30 - 11:00 Coffee break
11:00 - 12:30 **Yitzhak Rabin**
Networks and Gels I
14:30 - 16:00 **David Pine**
Introduction to Rheology and Microrheology
19:00 - 20:00 **Soundbites III**
Room G125

Tuesday, July 24th

9:00 - 10:30 **David Pine**
Physics of Colloids I
10:30 - 11:00 Coffee break
11:00 - 12:30 **Alexander Grosberg**
Disordered Polymers
14:30 - 16:00 **Michael Rubinstein**
Charged Polymers I
19:00 - 21:30 **Poster Session III**
11th Floor Commons Room

Wednesday, July 25th

9:00 - 10:30 **Eugene Shakhnovich**
Proteins I
10:30 - 11:00 Coffee break
11:00 - 12:30 **David Pine**
Physics of Colloids II
14:30 - 16:00 **Yitzhak Rabin**
Networks and Gels II
19:00 – 20:00 Kees Hummelen, University of Groningen, the Netherlands
Public lecture from the Renewable & Sustainable Energy school on “Plastic Solar Cells”
Duane Physics G1B30
http://www.colorado.edu/physics/I-CAMP/2012/ICAMP2012_Program.html

Week 3, **July 23 - 27**

Thursday, July 26th

9:00 - 10:30 **Michael Rubinstein**
Charged Polymers II
10:30 - 11:00 Coffee break
11:00 - 12:30 **Yitzhak Rabin**
Biophysics and Soft Matter by Numbers
14:30 - 16:00 **Eugene Shakhnovich** *Proteins II*

19:00 - 20:00 *Public Lecture* - **Paul Chaikin***,* Duane Physics G1B30

Friday, July 27th

9:00 - 10:30 **Michael Rubinstein**
Charged Polymers III
10:30 - 11:00 Coffee break
11:00 - 12:30 **Eugene Shakhnovich**
Proteins III
14:30 – 16:00 **Workshop and preparation for competition**
18:00 - 19:00 **BBQ** *Sewall Hall*

Week 4, **July 30 – August 3**

Monday, July 30th

9:00 - 10:30 **Ekaterina Zhulina**
Brushes and micelles I
10:30 - 11:00 Coffee break
11:00 - 12:30 **Daan Frenkel**
Computer Simulations I
14:30 - 16:00 **Robijn Bruinsma**
Viruses I
19:00 - 20:30 **Research Seminar**
Room G125

Tuesday, July 31st

9:00 - 10:30 **Paul Chaikin**
Colloids I
10:30 - 11:00 Coffee break
11:00 - 12:30 **Robijn Bruinsma**
Viruses II
14:30 - 16:00 **Ekaterina Zhulina**
Brushes and micelles II

Wednesday, August 1st

9:00 - 10:30 **Paul Chaikin**
Colloids II
10:30 - 11:00 Coffee break
11:00 - 12:30 **Ekaterina Zhulina**
Block Copolymers
14:30 - 16:00 **Daan Frenkel**
Computer Simulations II

Thursday, August 2nd

9:00 - 10:30 **Robijn Bruinsma**
Membranes, the Nernst Potential, and the Action Potential
10:30 - 11:00 Coffee break
11:00 - 12:30 **Daan Frenkel**
Computer Simulations III
14:30 - 16:00 What did we learn in this course?

Friday, August 3rd

9:00 - 10:30 Special Lecture
10:30 - 11:00 Coffee break
11:00 - 12:30 Soft Matter Olympiad
18:00 - 19:00 **BBQ** *Sewall Hall*