

Course Tuition	
Standard Course Tuition	\$1850
"Early Bird" Discount (prior to March 1, 2025)	\$1750
Multiple Participants Discount (2 or more participants from the same company)	\$1700
Full Time Graduate Student (Advisor letter certifying full time status must accompany registration)	\$1350
1 Day Registration	\$925

**FEES FOR UNIVERSITY HOUSING AND ON CAMPUS PARKING**  
*Farrington Square Suite to be shared with 2 other participants each with own room in suite*

University Housing at	\$65/person/night
University Parking For Farrington Square Residents at	\$15/car/day
University Parking for people living off campus: Zoellner Garage** June 2-6, 2025 (no daily fee available)	\$75

## Payment Options

Individuals can register and pay all fees by visiting the short course's website at:

<http://wordpress.lehigh.edu/inadvemu/>

Refund requests received before May 1, 2025 will be honored in full. After May 1<sup>st</sup>, there will be a processing charge of \$925 deducted for meeting cancellation and a processing charge of one night (\$65.00) will be deducted for housing cancellations. Please note: Individuals who cancel and are assessed the \$925.00 cancellation fee will be provided with a set of the Short Course Notes.

We would greatly appreciate it if you could check the box below indicating how you learned about this Short Course. Thank you very much for your input.

- A Colleague in my company
- Previous Attendee
- Trade Association
- Other (please indicate source): \_\_\_\_\_

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\$75

## 2025 Short Course Schedule

### Monday, June 2, 2025

7:00 A.M. – 8:00 A.M. COURSE REGISTRATION

Rauch Business Center 291/292/293

8:00 A.M. – 9:30 A.M. Lecture 1

Free Radical Polymerization Mechanisms and Kinetics

(F. Joseph Schork)

9:30 A.M. – 9:40 A.M. Coffee Break.

9:40 A.M. – 11:10 A.M. Lecture 2

Emulsion Polymerization Mechanisms and Kinetics (F. Joseph Schork)

11:10 A.M. – 11:20 A.M. Coffee Break.

11:20 A.M. – 12:50 P.M. Lecture 3

Branching and Grafting in Emulsion Polymerizations (Peter A. Lovell)

12:50 P.M. – 1:50 P.M. Lunch

Rauch Business Center 291/292/293

1:50 P.M. – 3:20 P.M. Lecture 4

The Role of Surfactants in Emulsion Polymerization and Kinetics (Mohamed S. El-Aasser)

3:20 P.M. – 3:30 P.M. Coffee Break.

3:30 P.M. – 5:00 PM Lecture 5

Semi-Continuous Emulsion Polymerization and Structured Latexes (Michael F. Cunningham)

6:00 P.M. – 8:00 P.M. Pizza Mixer –Participants and Speakers

### Tuesday, June 3, 2025

8:00 A.M. – 9:30 A.M. Lecture 6

Colloidal Stabilization and Destabilization Mechanisms of Latex Systems (Mohamed S. El-Aasser)

9:30 A.M. – 9:40 A.M. Coffee Break

9:40 A.M. – 11:10 P.M. Lecture 7

Characterization of Latex Particle Size and Particle Size Distribution: Experimental Methods (Andrew Hollingsworth)

11:10 A.M. – 11:20 A.M. Coffee Break

11:20 A.M. – 12:50 P.M. Lecture 8

Correlation Between Colloidal Structure and Application of Acrylic Latexes (Bernd Reck)

12:50 P.M. – 1:50 P.M. Lunch

Rauch Business Center 291/292/293

1:50 P.M. – 3:20 P.M. Lecture 9

Inverse Emulsion Polymerization (Donna Visioli)

3:20 P.M. – 3:30 P.M. Coffee Break

3:30 PM – 5:00 P.M. Lecture 10

Latex Film Formation (Peter A. Lovell)

### Wednesday, June 4, 2025

8:00 A.M. – 9:30 A.M. Lecture 11

Miniemulsions: Latex Systems via Polymerization in Monomer Droplets and Direct Emulsification of Polymer Solutions (Mohamed S. El-Aasser)

9:30 A.M. – 9:40 A.M. Coffee Break

9:40 A.M. – 11:10 P.M. Lecture 12

Living Radical Polymerization and Advances in Future directions for Emulsion Polymers/Polymer Colloids (Michael F. Cunningham)

11:10 A.M. – 11:20 A.M. Coffee Break

11:20 A.M. – 12:50 P.M. Lecture 13

Latex Rheology (Cesar A. Silebi)

### Wednesday, June 4, 2025 continued

12:50 P.M. – 1:50 P.M. Lunch

Rauch Business Center 291/292/293

1:50 P.M. – 3:20 P.M. Lecture 14

Coatings Material and Formulation Science (Christopher M. Miller)

3:20 P.M. – 3:30 P.M. Coffee Break

3:30 P.M. – 5:00 P.M. Lecture 15

Nonaqueous Colloids: Physics and Applications (Andrew Hollingsworth)

### Thursday, June 5, 2025

8:00 A.M. – 10:00 A.M. Lecture 16

Fundamentals and Advancement of Waterborne Epoxy and Polyurethanes (Bedri Erdem)

10:00A.M. – 10:10 A.M. Coffee Break

10:10 A.M. – 11:35 A.M. Lecture 17

Waterborne Pressure Sensitive Adhesives (Ying-Yuh Lu)

11:35 A.M. – 11:45 P.M. Coffee Break

11:45 A.M. – 1:00 P.M. Lecture 18

Recent Patent Activity Involving Emulsion Polymers and Reduction of Residual Monomers (Donna Visioli)

1:00 P.M. – 2:00 P.M. Lunch

Rauch Business Center 291/292/293

2:00 P.M. – 3:30 P.M. Lecture 19

Film Formation and Film Properties of Acrylic Latexes for Coatings and Adhesives (Bernd Reck)

3:30 P.M. – 3:40 P.M. Coffee Break

3:40 P.M. – 5:10 P.M. Lecture 20

Water-Borne Soft-Soft Nanocomposites: Principles and Application Case Studies (Peter Lovell)

7:15 P.M. – 9:15 PM Lecture 21

Question & Answer Session (Lecturers and Participants)

### Friday, June 6, 2025

8:00 A.M. – 9:15 A.M. Lecture 22

Sensors and Controls for Emulsion Polymerization Reactors (F. Joseph Schork)

9:15 A.M. – 9:20 A.M. Break

9:20 A.M. – 10:35 A.M. Lecture 23

Reactor Design and Scale-up in Emulsion Polymerization (Michael F. Cunningham)

10:35 A.M. – 10:45 A.M. Break

10:45 A.M. –12:00PM. Lecture 24

Monodisperse Latex Particles – Preparation, Surface Modification, Characterization and Application (Mohamed S. El-Aasser)

Please visit our website for further registration details, downloadable and on-line registration forms, abstracts of the lectures, biographies of the speakers and other logistics details.

<http://wordpress.lehigh.edu/inadvemu/>

For more information, or to mail in a registration form or check,

Please contact:

Debra Hartzell Nyby, Department of Chemical and Biomolecular Engineering | Lehigh University

111 Research Drive • Bethlehem, PA 18015-4732

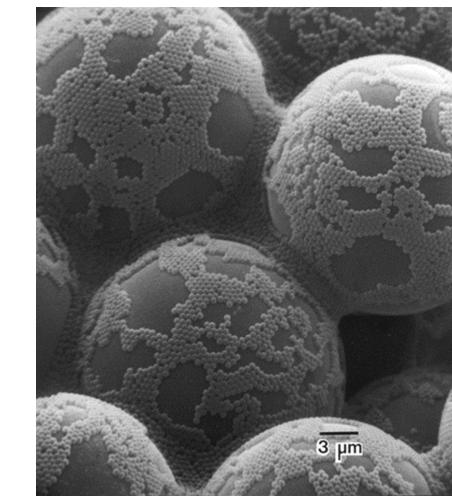
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LEHIGH  
UNIVERSITY

## 56<sup>th</sup> Annual Short Course

### Advances in Emulsion Polymerization and Latex Technology



EPI Graduate Research Progress Report # 28 – SEM micrograph showing flocculation of a 154 nm diameter cationic acrylic latex onto the surface of a 19  $\mu$ m monodisperse polystyrene latex.

June 2-6, 2025

Regarding COVID 19, we will abide by the Center for Disease Control and Prevention (CDC) guidelines and Lehigh University procedures.

# 56<sup>th</sup> Annual Short Course

## "Advances in Emulsion Polymerization and Latex Technology"

June 2-6, 2025

### Course Organizer

DR. MOHAMED S. EL-AASSER  
*Professor Emeritus*  
*Department of Chemical and Biomolecular Engineering*

### Course Design

The course is an in-depth study of the synthesis, characterization, and properties of high polymer latexes. The subject matter includes a balance of theory and applications as well as a balance between chemical and physical problems. Lectures will be given by leading academic and industrial scientists. Lectures will begin with introductory material and reviews, and will progress through recent research results and industrial application.

### Location and Time

Rauch Business Center | Lehigh University  
621 Taylor Street | Bethlehem, Pennsylvania 18015  
Registration/Check In: Monday, June 2<sup>nd</sup> 7:00 a.m. - 8:00 a.m. at Rauch Business Center 291/292/293

All Lectures will be held in the Rauch Business Center, Perella Auditorium, Room 184

- Lectures will start at 8:00 A.M. Monday to Friday.
- Lectures on Friday will end by noon.

### Participants

The course is designed for engineers and scientists who are actively involved in emulsion work as well as for those who wish to develop expertise in the area. A basic background in chemistry will be assumed. More advanced and experienced participants may elect to attend only those days in which material of specific interest is being presented. All participants will receive a printed set of course notes as well as additional supplementary course materials in PDF format.

### Fees

\$1,850 for the entire five (5) days or \$925 per day for any portion of the course attended. Some discounts are available; see the course registration section for details.

Fees cover registration, a set of notes, five (5) days of beverages at break, and lunch provided for four (4) days and a Pizza Mixer for participants' networking on Monday evening.

### Payment Options:

- Please go to the following website to register for the course, university housing, and university parking to pay by credit card (Visa, Master Charge, or American Express). <http://wordpress.lehigh.edu/inadvemu/>

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### Accomodations

Modern air-conditioned University dormitories are available within several blocks of the conference site. Linens are provided. *Single occupants will share a suite (living room and bathroom) with two (2) other course participants.* Each person will have a private bedroom. Please see the following site for a description of the Farrington Square dormitories:

<http://www4.lehigh.edu/housing/residencehalls/az/campussquare.aspx>

A processing charge (\$65.00) of one night will be deducted for housing cancellations after May 1, 2025.

A Continental Breakfast will be available to course participants at Rauch Business Center on June 2<sup>nd</sup> only. Beverages only will be provided with breaks throughout the day. Lunches from Monday to Thursday are included and a Pizza Mixer on Monday evening.

Hotels/motels are for the most part far from campus and will require transportation. Hotel/motel reservations should be made by contacting the hotel/motel directly.

Please be sure to mention you are coming to Lehigh University and request the Lehigh University rate.

#### Comfort Suites\*

120 West Third Street, Bethlehem, PA; 484-379-0827

#### Holiday Inn Express Hotel & Suites

2201 Cherry Lane, Bethlehem, PA; 610-838-6110

#### Historic Hotel Bethlehem

437 Main Street, Bethlehem, PA; 610-625-5000

#### Hyatt Place

45 West North Street, Bethlehem, PA 18018; 610-625-0500

*\*Only hotel within walking distance of the university.*

### Transporation an Locale

Bethlehem is located in the heart of the Lehigh Valley about 50 miles north of Philadelphia and 80 miles west of New York City.

It is easily accessible by plane via the Lehigh Valley International Airport (formerly known as the ABE, Allentown-Bethlehem-Easton Airport), by car via the east-west Route 78 (22) and the north-south Northeast Turnpike Extension (I-476) and Routes 309 and 378, or by bus from New York City (Port Authority Terminal).

#### Driving Instructions to Rauch Business Center, Lehigh University:

<https://www1.lehigh.edu/about/maps-directions/rauch-business-center>

#### Driving Instructions to Farrington Square

(on campus housing)  
<http://www.lehigh.edu/campusmap/?mapitloc=Campus%20Square%20A-D>

### Lecturers

**Michael Cunningham**, Queen's University, CANADA

**Mohamed El-Aasser**, Lehigh University, USA

**Bedri Erdem**, Rust-Oleum Corporation, USA

**Andy Hollingsworth**, New York University, USA

**Peter Lovell**, University of Manchester, UK

**Ying-Yuh Lu**, 3M Company (*retired*), USA

**Christopher Miller**, Arkema, USA

**Bernd Reck**, BASF, Germany

**F. Joseph Schork**, Georgia Institute of Technology, USA

**Cesar Silebi**, Lehigh University, USA

**Donna Vissioli**, DuPont (*retired*), USA