

About Your Instructor

Myer Ezrin, Ph.D., Director (retired), IMS Associates Program, Institute of Materials Science, University of Connecticut



Dr. Ezrin's studies of polymers started at Yale University where he obtained his Ph.D. in 1954. His entire career of 55 years to 2006 when he retired has been in polymers and plastics (29 in industry and 26 in academia). His industry positions were at Dupont, Monsanto, and Springborn Laboratories (a consulting company). At the University of Connecticut's Institute of Materials Science (1980-2006) he was director of an industry support program in materials (plastics, metals and ceramics). He specialized in plastics analysis and failure analysis.

Since retiring, he continues to be active in consulting and writing. A revised and expanded version of his well-known 1996 book, "Plastics Failure Guide: Cause and Prevention", is in preparation. He has expanded plastics failure to include Failure of Human Biopolymers with two papers and a chapter in the forthcoming new edition. Dr. Ezrin has testified as an expert witness on product liability and patent infringement litigation in the U.S., Canada, and England. In 1983 he co-authored "Plastics Failure Guide". In 1999 he was elected fellow of the Society of Plastics Engineers. In June 2010 he gave short courses on plastics failure analysis in Bangkok, Thailand and Kuala Lumpur, Malaysia.

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Return Services Requested

IMS Associates Program Short Course



Plastics Failure Analysis

**Wednesday, September 21 &
Thursday, September 22, 2011
9:00 a.m. - 5:00 p.m.**



Sponsored by:
Institute of Materials Science &
IMS Associates Program
University of Connecticut
Storrs, Connecticut

About the Workshop

In common with other materials such as metals, the potential personal injury, property damage, financial and legal consequences of plastics failure can be very high—including death, litigation for hundreds of millions of dollars, and bankruptcy. Plastics designers and engineers walk a virtual tightrope in their efforts to produce profitable products with the required properties, durability, and lifetime at competitive cost.

A major problem in predicting failure is that plastics are the “new kid on the block” compared to older materials. A product’s lifetime expectancy may exceed the number of years some plastics have been in existence, and performance in unforeseen service conditions may be practically impossible to predict. On balance, it is amazing that plastics perform as well as they do, given their short history, their complexity and their diverse applications.

This two-day workshop takes some of the mystery out of why plastics fail by demonstrating the role of the major factors that determine if there will be failure or success: material, design, processing, and the effect of service conditions. The course bridges the gap between theoretical and basic aspects of polymers and the failure of plastics formulations in commercial and industrial practice. Prevention is emphasized throughout the course. Case studies of wide-ranging types of failure of different materials and applications illustrate the underlying principles.

Product performance can be improved by knowing the principles involved and appropriate methods of failure analysis.

Who Should Attend

This course will be useful to people with experience in plastics as well as to students and beginners in the field. A background in polymers and plastics is not required. Plastics resin manufacturers and processors, as well as users of plastics products will also benefit.

Further Information

Questions regarding the course should be directed to Rhonda Ward at 860-486-5874 (voice), 860-486-4745 (fax) or rhonda.ward@ims.uconn.edu

COURSE HIGHLIGHTS

- Fundamental aspects of plastics materials and failure
- Role of material, design and processing in failure
- Service conditions and failure
- Test procedures
- Quality control and legal aspects
- Failures in composites, pipe, medical and electrical/electronic applications
- Adhesion failure
- Failure of human biopolymers
- Environmental, recycling and health aspects

COURSE BONUS

Participants are entitled to 20 minutes of free telephone consultation with Dr. Ezrin within one year of completing this course

Course Location and Schedule

The course will be held on September 21 & 22, 2011 from 9am to 5pm each day in Room 159 of the Institute of Materials Science (Gant Building) on the Storrs campus of the University of Connecticut. Parking is available across the street in the North Parking Garage.

Directions: <http://visitors.uconn.edu/directions.php>

Interactive campus map: <http://maps.uconn.edu/>

Registration

The registration fee (see facing panel) includes workshop attendance, a set of course notes, lunch and coffee breaks. Registration for this course closes September 9, 2011.

Please let us know in advance if you require special services / arrangements.

Refund and Cancellation Policy

The registration fee is refundable, less \$35, prior to the first day of the course, only if you notify Student Services: 877-892-6264 or 860-486-4905. Participants who do not attend and fail to cancel are subject to the full fee. Participant substitutions may be made.

The Institute of Materials Science reserves the right to change instructors and cancel or reschedule the course in the event of insufficient enrollment or unforeseen circumstances.

Schedule # 1118

Plastics Failure Analysis

Registration Form

September 21 - 22, 2011

Name _____

Title _____

Company _____

Business Address _____

Phone _____

Fax _____

E-mail _____

___ Check enclosed payable to UConn

___ PO # * _____ PO Issuer _____

Contact Person's Name & Phone Number _____

Registration Fees

IMS Associates Program Members**

\$330 per registrant

All Others

\$650 per registrant

Methods of Payment

Mail Send complete registration form plus check or PO to: University of Connecticut, Student Services Office, One Bishop Circle, Unit 4056, Storrs, CT 06269-4056.

FAX: FAX complete registration form & PO to our secure FAX 860-486-0272

Online Pay by credit card (VISA/MasterCard/Discover/Diners Int'l) or PO visit https://ccsstudent.ccs.uconn.edu/noncredit/ec2k/CourseListing.asp?master_id=3681&course_area=XPW&course_number=181&course_subtitle=00

* If you plan to use a Purchase Order for online registration you must receive prior validation. Please call 1-877-892-6264 and have the Purchase Order number, maximum amount of Purchase Order, valid start

**IMS Associates Program

The IMS Associates Program assists industry with short-term projects in research, development and manufacturing projects where expertise or facilities are not readily available from the private sector. For more information regarding IMS Outreach visit <http://www.ims.uconn.edu> click on “Outreach”