

THE LOS ANGELES RUBBER GROUP, INC
BASIC RUBBER TECHNOLOGY CLASS - 2019/2020
 Location: R.D. Abbott Co, Inc. | 16511 Carmenita Rd., Cerritos, CA
 Thursdays 6:30 pm – 8:30 pm

COURSE TOPICS & READING ASSIGNMENTS:

FIRST SEMESTER

- 9/05 **Lecture:** Introduction to Class, Rubber History and Terminology
- 9/12 **Lecture:** Introduction to Elastomers (Standard elastomers): *Natural Rubber, Styrene Butadiene, Polyisoprene, Polybutadiene, Nitrile, Chloroprene, Ethylene Propylene, Butyl, Fluorocarbon & Urethane*
 Textbook Provided in Class: Fundamentals of Rubber Technology
 Reading Assn: Glossary (pp.317-333) & Elastomers an Historical Perspective – Chapter 1 (pp. 1-21)
- 9/19 **Lecture:** Introduction to Elastomers (Engineered Elastomers): Introduction to Rubber Compound Ingredients: *Fillers, Plasticizers, Activators, Antidegradents, Accelerators, Vulcanizers and Miscellaneous Materials.*
 Reading Assn: Elastomers as Engineered Materials Part 1 – Chapter 2 (pp.27-43)
- 9/26 **Lecture:** Introduction to Rubber Compound Ingredients: Continued *Silicones*
 Reading Assn: Elastomers as Engineered Materials Part 2 – Chapter 2 (pp.43-55)
- 10/03 **Plant Tour:** 6:30 PM at R&S Processing, 15712 Illinois Ave., Paramount
 Reading Assn: Mixing, Calendaring and Extrusion of Rubber Part 1 – Chapter 4 (pp. 97-111)
- 10/10 **No Class** – Rubber Division, ACS Meeting – Dismissed, so those who want to attend may do so.
- 10/17 **Plant Tour:** 6:30 PM at West American Rubber Co., 1337 Braden Court, Orange
 Reading Assn: Molding Part 1 – Chapter 5 (pp. 129-136)
- 10/24 **Exhibit:** Commercial Products (Students Show & Tell)
- 10/31 **No Class** – Enjoy Halloween!
- 11/07 **Lecture:** Molding and Processing & Rubber to Metal Bonding
 Reading Assn: Molding Part 2 – Chapter 5 (pp. 136-149) & Bonding – Chapter 8 (pp.219-229)
- 11/14 **Plant Tour:** 6:30 PM at M.R. Mold & Engineering Corp., 2700 E. Imperial Hwy., Brea
- 11/21 **Workshop:** Standards and Specifications Part 1
 Reading Assn: Chapter 4, Part 2 (pp. 112-125)

SECOND SEMESTER

- 1/09 **Workshop:** Standards & Specifications Part 2 & Compounding Part 1 – Class Project: Formulating Silicones Part I. **Guest:** Don Bowman
 Reading Assn: Rubber Compounding Part 1 – Chapter 3 (pp.61-75)
- 1/16 **Workshop:** Compounding Part 2 – Class Project II: Formulating Silicones Part II & Formulating Organics Part I **Guest:** Don Bowman
 Reading Assn: Rubber Compounding Part 3 – Chapter 3 (pp.75-91)
- 1/23 **Workshop:** Rubber Vulcanization – Class Project III: Formulating Organics Part II
 Reading Assn: Testing – Chapter 6 (pp. 155-188)
- 1/30 **Lecture:** Latex and Sponge Rubber
 Reading Assn: Special Topics – Chapter 12 (pp.300-302)
- 2/06 **Plant Tour:** 6:30 PM at Hexpol Compounding, 491 Wilson Way, City of Industry
 Reading Assn: Overview of Rubber Materials Used in Rubber Manufacturing – Chapter 11 (pp.281-287)
- 2/13 **Plant Tour:** 6:30 PM at Wacker Silmix, 13910 Oaks Ave., Chino
 Reading Assn: Tires – Chapter 10 (pp, 261-275)
- 2/20 **Lecture:** Rubber Technology behind Tire Design **Guest Speaker:** Kevin Kulbaba
- 2/27 **In Lab Training** Part 1 (Silicone) – Tensiometer Testing and Mill Mixing
 Reading Assn: Testing – Chapter 7 (pp. 195-213)
- 3/05 **In Lab Training:** Part 2 (Organic) – Rheology Testing and Banbury Mixing
- 3/12 **Graduation Dinner:** Class Formulation Review – Presentation of Certificates from our TLARGI Board

COURSE CONTACTS:

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