

TRIBOLOGY: FRICTION, WEAR, AND LUBRICATION
A SUMMER PROFESSIONAL PROGRAM
22-26 JUNE 2020
MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MA 02139-4307

Lecture Time	Monday (6/22)	Tuesday (6/23)	Wednesday (6/24)	Thursday (6/25)	Friday (6/26)
8:30–9:30 AM	1. Preliminaries & Course Overview (NS)	7. Friction of Undulating Surfaces (NS)	13. Wear of Polymers (NR)	19. Liquid and Solid Lubricants (SJ)	25. BioTribology (SJ)
9:30–10:00	<i>Coffee Break</i>	<i>Coffee Break</i>	<i>Coffee Break</i>	<i>Coffee Break</i>	<i>Coffee Break</i>
10:00–11:00	2. Introduction to Tribology (NPS)	8. Sliding Wear (SJ)	14. Wear of Coatings (NR)	20. Boundary and Thin Film Lubrication (SJ)	26. Nanotribology (NR)
11:00–12:00 Noon	3. Surface Topography & 27. Prospect on Tribology: Surface Properties (NS)	9. Abrasive and Erosive Wear (SJ)	(NS)	15. Surface Temperature (SJ)	21. Fluid Film Lubrication A Historical Perspective (NPS)
12:00–1:30 PM	<i>Lunch Break</i>	<i>Lunch Break</i>	<i>Lunch Break</i>	<i>Lunch Break</i>	<i>Farewell Lunch Catalyst, 12:30 pm</i>
1:30–2:30	4. Sliding Friction: Mechanisms & Models (NS)	10. Wear of Ceramics and Brittle Materials (SJ)	16. Wear-Mechanism Maps (NS)	22. Case Studies V: Lubrication (SJ)	
2:30–3:30	5. Tribological Testing I: Theory (NR)	11. Case Studies I: Friction (SJ, NS)	17. Case Studies III: Wear (SJ)	23. EHD Lubrication: Gears and Rolling Element Bearings (VW)	
3:30–4:00	<i>Coffee Break</i>	<i>Coffee Break</i>	<i>Coffee Break</i>	<i>Coffee Break</i>	
4:00–5:00	6. Tribological Testing II: Demonstrations (NR)	12. Case Studies II: Wear (SJ)	18. Case Studies IV: Wear of Polymers & Coatings (NR)	24. Case Studies VI: EHD Lubrication (VW)	
	<i>Welcome Reception Place to be determined, 6:00 pm</i>		<i>Program Dinner Legal Sea Foods, 6:30 pm</i>		

