

TRIBOLOGY: FRICTION, WEAR, LUBRICATION, AND DESIGN

A SUMMER PROFESSIONAL PROGRAM

9 - 11 JUNE 2025

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MA 02139-4307

Lecture Time	Monday (6/9)	Tuesday (6/10)	Wednesday (6/11)	
8:30 – 9:30 AM	1. Welcoming Remarks (NPS) Course Overview (NS)	7. Surface Temperature (NS)	13. Liquid and Solid Lubricants (SJ)	
9:30 – 10:00	<i>Break</i>	<i>Break</i>	<i>Break</i>	
10:00 - 11:00	2. The Importance of Tribology (SJ)	8. Sliding Wear (SJ)	14. Boundary and Thin Film Lubrication (SJ)	
11:00 – 12:00 Noon	3. Surface Topography and Surface Properties (NS)	9. Abrasive and Erosive Wear (SJ)	15. Fluid Film Lubrication (SJ)	
12:00 – 1:30 PM	<i>Lunch Break</i>	<i>Lunch Break</i>	<i>Lunch Break</i>	Course Presenters: NPS: Prof. Nam P. Suh
1:30 – 2:30	4. Sliding Friction: Laws and Theories (NS)	10. Wear of Ceramics and Brittle Materials (SJ)	16. EHD Lubrication: Gears and Rolling Element Bearings (VW)	NS: Dr. Nannaji Saka
2:30 – 3:30	5. Tribological Testing I: Instrumentation (NR)	11. Wear of Polymers (NR)	17. Tribology by Design (VW)	SJ: Dr. Said Jahanmir NR: Dr. Nicholas X. Randall VW: Dr. Vern Wedeven
3:30 – 4:00	<i>Break</i>	<i>Break</i>	<i>Break</i>	
4:00 – 5:00	6. Tribological Testing II: Demonstrations (NR)	12. Wear of Coatings (NR)	18. Axiomatic Design (NPS)	
	6:00 PM Welcome Reception	6:30 PM Program Dinner		10/31/2024

