ENG ME 519 Heat Transfer

Spring 2023

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Text: John H. Lienhard, A Heat Transfer Textbook, $4^{\rm th}$ ed., Dover, 2011; $5^{\rm th}$ edition available at https://ahtt.mit.edu.

Week Beginning	<u>Topics</u>	Reading
1/16	Introduction to heat transfer	1.1 – 1.5
1/23	Heat diffusion equation	2.1 – 2.5
1/30	One-dimensional conduction	4.1 – 4.3
2/6	п	4.4 – 4.5
2/13	Multi-dimensional conduction	5.1 – 5.4
2/20	п	5.5 – 5.8
2/27	Laminar boundary layers	6.1 – 6.3
3/13	п	6.3 – 6.6
3/20	Turbulent boundary layers	6.7 – 6.8
3/27	п	11
4/3	Pipe flow	7.1 – 7.4
4/10	Natural convection	8.1-8.4
4/17	Film condensation	8.5
4/24	Radiation heat transfer	10.1–10.3
5/1	II.	10.4–10.6