

Syllabus

JME 3710: Principles of Heat Transfer

This is the *tentative* information for the course and it is subject to change without notice. Check periodically! Last updated on August 29, 2016.

#	DATE	TOPIC	NOTES	CH.
1	8/30	Heat Transfer Intro.	—	1
2	9/1	Intro. to Conduction	hw 1 assigned	2
3	9/6	1–D Steady Conduction: Circuit Analogy	—	3
4	9/8	1–D Steady Conduction: Heat Gen.	hw 1 due / hw 2 ass.	3
5	9/13	Steady Conduction: Fins & Multi–Dim.	—	3
6	9/15	1–D Unsteady Conduction: Capacitance	hw 2 due / hw 3 ass.	5
7	9/20	1–D Unsteady Conduction Analysis	—	5
8	9/22	1–D Unsteady Conduction Analysis	hw 3 due / hw 4 ass.	5
9	9/27	Introduction to Convection	—	6
10	9/29	Introduction to Convection	hw 4 due [†] / hw 5 ass.	6
11	10/4	Introduction to Convection	—	6
12	10/6	External Flow	hw 5 due / hw 6 ass.	7
13	10/11	Internal Flow	—	8
14	10/13	Internal Flow / Free Convection	hw 6 due / hw 7 ass.	8/9
—	10/18	FALL BREAK	—	9
15	10/20	Free Convection	hw 7 due / hw 8 ass.	11
16	10/25	Introduction to Heat Exchangers	—	11
17	10/27	Heat Exchangers: LMTD Analysis	hw 8 due [‡] / hw 9 ass.	11
18	11/1	MIDTERM EXAM	—	—
19	11/3	Heat Exchangers: ϵ –NTU Analysis	hw 9 due / hw 10 ass.	12
20	11/8	Introduction to Radiation	—	12
21	11/10	Blackbodies & Real Surfaces	hw 10 due / hw 11 ass.	12
22	11/15	Kirchoff’s Laws & Gray Surfaces	—	13
23	11/17	Radiation View Factors	hw 11 due [§] / hw 12 ass.	13
24	11/22	View Factors & Blackbody Exchange	—	13
—	11/24	THANKSGIVING BREAK	hw 12 due / hw 13 ass.	13
25	11/29	Blackbody & Graybody Exchange	—	13
26	12/1	Exchange Among Diffuse Gray Surfaces	hw 13 due / hw 14 ass.	—
27	12/6	The Graybody Matrix Problem	—	13
28	12/8	The Graybody Matrix Problem	hw 14 due [¶]	—

[†]Last day to hand in homeworks 1 through 4

[‡]Last day to hand in homeworks 5 through 8

[§]Last day to hand in homeworks 9 through 11

[¶]Last day to hand in remaining homeworks