

Week	Date	Topic	Reading from Todreas & Kazimi Textbook (read before class)	Assignments due (at the beginning of class)	Lecturer
1	2-Sep Wednesday	Heat Generation in Nuclear Systems	Ch. 3		<i>Guest lecture: Troy Haskin</i>
	4-Sep Friday				<i>Guest lecture: Troy Haskin</i>
2	9-Sep Wednesday	Heat Generation in Nuclear Systems - continued	Ch. 8.1, 8.2		
	11-Sep Friday	Conduction: Derive the conservation equation	Ch. 8.2.1	HW1 - Heat Generation	
3	16-Sep Wednesday	Conduction: 1D Examples & Thermal Conductivity & Thermal Resistance	Ch 8.2 & 8.4 & 8.7		
	18-Sep Friday	Conduction: Fins & Lumped Capacitance	ElWakil Ch. 6.6 & El Wakil 8.2		<i>Guest Lecture: Mike Corradini</i>
4	23-Sep Wednesday	Conduction: Transients & Finite Difference	<i>El Wakil 7.1-7.3, 8.4</i>		
	25-Sep Friday	Conduction: 2D/3D & Uncertainty Analysis	Vol. II Ch. 8 & El Wakil 7.4-7.7	HW 2 - Conduction	<i>Guest Lecture: Mike Corradini</i>
5	30-Sep Wednesday	Thermally Induced Stress	<i>Handout 3 - Stress</i>		
	2-Oct Friday	<i>Review for Midterm I</i>		HW 3 - Conduction Numerical Solutions	
6	7-Oct Wednesday	Radiation Heat Transport	<i>Handout 4 - Radiation</i>		
		10-7, Wednesday 7.15PM MIDTERM #1: Solids - Conduction and thermal stresses			
	9-Oct Friday	Single Phase Convection - Derivation of the Conservation Equations	Ch. 4.1-4.5	HW 4 - Radiation & Thermal Stress	
7	14-Oct Wednesday	Single Phase Convection - Reynolds Analogy	Ch. 4.6 & 9.1 - 9.4		<i>Guest Lecture: Mike Corradini</i>
	16-Oct Friday	Multiphase Flow - Pressure Drop, Critical Flow	Chapter 5	HW 5 - Single Phase Convection	<i>Guest lecture: TBD</i>
8	21-Oct Wednesday				
	23-Oct Friday	Multiphase Heat Transfer: Boiling and Condensation			<i>Guest Lecture: Mike Corradini</i>
9	28-Oct Wednesday	Multiphase Heat Transfer: Boiling and Condensation	Chapter 12		<i>Guest lecture: TBD</i>
	30-Oct Friday		Chapter 13	HW 6 - Multi-phase Flow & Heat Transfer	
10	4-Nov Wednesday	Buoyancy-Driven Flow	<i>Handout 5 - Buoyancy Driven Flow</i>		
	6-Nov Friday	<i>Review for Midterm II</i>		HW 7 - Buoyancy-Driven Flow	
1	11-Nov Wednesday	Single Channel Analysis	Chapter 14		<i>Guest Lecture: Mike Corradini</i>
		11-11, Wednesday 7.15PM MIDTERM #2: Fluids – Convection and flow			
	13-Nov Friday	Case Studies: Severe reactor accident evolution		HW 8 - Project Definition	<i>Guest Lecture: Mike Corradini</i>
12	19-Nov Wednesday	Scaling analysis	<i>Handout 6 - Scaled Experiments</i>		
	21-Nov Friday	Thermal Design	Chapter 2		<i>Guest Lecture: Mike Corradini</i>
13	25-Nov Wednesday	Passive and intrinsic reactor safety features: case studies			
		NO CLASS – Thanksgiving Holiday			
14	2-Dec Wednesday	Case studies - Example		Presentation Slides Due	<i>TBD</i>
	4-Dec Friday	Case studies - In-Class Presentation			
15	9-Dec Wednesday	Case studies - In-Class Presentation			
	11-Dec Friday	Thermal Design and Safety Analysis Summary Lecture		Last day to turn in HW Redos	LAST DAY OF CLASS
	16-Dec	NO CLASS - STUDY DAY			
	18-Dec	NO CLASS - STUDY DAY			
	19-Dec	FINAL EXAM: Saturday, 7.25-9.25PM			
	23-Dec	PROJECT WRITE-UP DUE: Wednesday, 10PM			

reading assignments below the double line are tentative