

Syllabus CM3110 Fall 2008

week	date	hr	topic	Chapter (Geankoplis 4th ed)	assignments exams
1	Monday, September 01, 2008	1	no class- Labor day	-	
1	Wednesday, September 03, 2008	2	Intro to transport phenomena, turbulence	Chapters 1,2	
1		3	Fundamentals viscosity	2.3,2.4	
2	Monday, September 08, 2008	4	Velocity distributions in laminar flow	2.6-2.10	HW1
2	Wednesday, September 10, 2008	5	Velocity distributions in laminar flow	2.6-2.10	
2		6	Velocity distributions in laminar flow	2.6-2.10	
3	Monday, September 15, 2008	7	Control volume	2.6-2.10	HW2
3	Wednesday, September 17, 2008	8	in class miniexam 1		Miniexam 1
3		9	Non-Newtonian fluids	3.5	
4	Monday, September 22, 2008	10	Navier-Stokes equation	3.6-3.9	HW3
4	Wednesday, September 24, 2008	11	Navier-Stokes/Dimensional Analysis	2.5,3.6-3.9,3.11	
4		12	Dimensional analysis	3.11	
5	Monday, September 29, 2008	13	Macro balances - momentum	2.8	
5	Wednesday, October 01, 2008	14	Macro balances - momentum	2.8	HW4
5		15	Compressible fluid flow	2.11,3.10	
6	Monday, October 06, 2008	16	Flow past immersed bodies	3.1	Miniexam 2 (6:30-7pm)
6	Tuesday, October 07, 2008	17	Evening miniexam 2		
6	Wednesday, October 08, 2008	18	Flow through packed beds	3.1	
6		19	Fluidization	3.1	
7	Monday, October 13, 2008	20	Fans, blowers, compressors	3.2,3.3	
7	Wednesday, October 15, 2008	21	Agitation and mixing	3.4	HW5
7		22	Introduction to heat transport	Chapter 4	
8	Monday, October 20, 2008	23	Fourier's law/calculating T profiles	4.1-4.4	Exam (6:30-8pm)
8	Tuesday, October 21, 2008	24	Evening midterm exam		
8	Wednesday, October 22, 2008	25	Calculating T profiles/flux/BCs	4.1-4.4	
8		26	Calculating T profiles	4.1-4.4	
9	Monday, October 27, 2008	27	Overall heat transfer coefficients	4.5-4.6	
9	Wednesday, October 29, 2008	28	Heat Exchangers	4.9	HW6
9		29	Calculate T profiles with heat generation	4.3	
10	Monday, November 03, 2008	30	Energy Equation	5.1,5.2,5.6	HW7
10	Wednesday, November 05, 2008	31	Problems	Chapter 4	
10		32	Dimensional analysis	4.14	
11	Monday, November 10, 2008	33	Dimen. Anal./Heat transfer Coefficients	4.12-14,4.5,4.6	
11	Tuesday, November 11, 2008	34	Evening miniexam 3		miniexam 3 (6:30-7pm)
11	Wednesday, November 12, 2008	35	Heat transfer coefficients natural convection	4.7	
11		36	Heat transfer coefficients phase change	4.8	
12	Monday, November 17, 2008	37	Heat exchanger Design/fouling	4.9	HW8
12	Wednesday, November 19, 2008	38	Unsteady state heat transport	5.1-5.3	
12		39	Unsteady state heat transport	5.1-5.3	
Break	Monday, November 24, 2008		no class- Thanksgiving		
Break	Wednesday, November 26, 2008		no class- Thanksgiving		
Break					
13	Monday, December 01, 2008	40	Radiation	4.10-4.12	HW9
13	Wednesday, December 03, 2008	41	In class miniexam 4		
14	Monday, December 08, 2008	42	Radiation	4.10-4.12	
14	Wednesday, December 10, 2008	43	Radiation	4.10-4.12	HW10
14			Review	Chapters 1-5	
Exam	Exam Week				