TR Classes	Week	Videos	Module 2020	CM3110 Spring 2021 Morrison v1
1	1	1	1	Why study fluid mechanics? MEB/math/physics/statics
2	1	2	2	How fluids behave? Viscosity, drag, turbulence
3	2	3	2	Continuum mechanics/Control Volume
4	2			**Exam 1 (Study Guide 1)**
5	3	4	2	First momentum balance start
6	3	5	2	Shell Balances, Flow down an incline plane
7	4	6	2	Navier-Stokes - microscopic momentum balance
8	4		2	Winter Carnival
9	5	7	2	Newtonian constitutive eqn, stress tensor
10	5	8	3	Poiseuille flow in a tube; more complex flows
11	6	9	3	Non-Newtonian fluids (rheology)
12	6			**Exam 2 (Study Guide 2)**
13	7	10	3	Internal flows/correlations/dimensional analysis, noncircular conduits, hydraulic diameter, packed beds
14	7	11	3	Macroscopic momentum balances; how to choose tools
15	8	12	3	External flows/correlations/dimensional analysis
16	8	13	3	Boundary Layer/Numerical Solutions/Compressible flow
17	9	14	4	Fourier's law; intro to heat transfer
18	9			**Exam 3 (Study Guide 3)**
19	10	15	4	1D Heat transfer (rectangular); Newton's law of cooling (h)
20	10	16	4	1D Heat transfer (radial); resistances in series
21	11	17	4	Dimensional analysis in forced convection; Nu correlations
22	11	18	5	Dimensional Analysis/Natural convection Heat Transfer Coefficients
23	12	19	5	Heat Transfer Coefficients (natural convection); overall heat xfer coeff; shell & tube HE; HE effectiveness; fouling
24	12			**Exam 4 (Study Guide 4)**
25	13	20	5	Heat transfer coefficients (phase change), heat exchangers, evaporators, condensers
26	13	21	5	Introduction to radiation
27	14	22	5	Radiation/heat shields
28	14	23	5	Course summary
				Final exam (Study Guide 5 plus 1-4)