

Tentative schedule (subject to change)

Week	Chapter or Topic	Laboratory
1 (8-24)	Introduction to the course Team formation Set up IClicker REEF Note: Chapters 1 and 2 are a review of material covered in Fluid Mechanics, a prerequisite to this class. Chapter 1-Fundamental properties of water Chapter 2 Water Pressure and Pressure forces and manometers	NO LAB
2 (8-31)	Chapter 2 Manometers, continued. Chapter 3: Water Flow in Pipes, major and minor losses	Buoyancy and Flow between tanks
3 (9-7)	Chapter 3: Water Flow in Pipes, major and minor losses, continued	Rainwater harvesting/modeling
4 (9-14)	Chapter 3: Water Flow in Pipes, major and minor losses Chapter 4: Pipelines and Pipe Networks. Sections 4.1,4.2, 4.3, 4.5 (theory),	Pipe Flow
5 (9-21)	Chapter 5 Water Pumps: System curves Review	Stream flow (Field measurements)
6 (9-28)	Chapter 5: Pumps and pump curves EXAM #1 (Chapters 1-5. Chapter 5 system curves only not pump curves): October 1st.	Field trip (virtual)
7 (10-5)	Chapter 5: Pump and pump curves, continued Chapter 6: Water Flow in Open Channels. Manning Equation and Energy	Pump curve and system curve
8 (10-12)	Chapter 6: Water Flow in Open Channels. Specific Energy and Non Uniform Flow, Critical, sub-critical and supercritical flow, Hydraulic Jump, Opening of Spillway Chapter 9: Water Pressure, Velocity, and discharge measurements	Specific energy/modeling
9 (10-19)	EXAM #2 (Chapters 5-system and pump curves, Chapter 6, 9) – October 22nd, 2020)	Hydraulic jump/modeling
10 (10-26)	Chapter 11 Hydrology and methods to estimate peak discharge Flipped Classroom	Steady flow to well

Week	Chapter or Topic	Laboratory
11 (11-2)	Chapter 11 Methods to estimate peak discharge	Flow under sheet pile
12 (11-9)	Chapter 7: Groundwater Hydraulics	Flow through weirs/modeling
13 (11-16)	Chapter 7: Groundwater Hydraulics Chapter 8: Hydraulic structures	Rainfall/Runoff Relationships
14 (11-23)	Wrap up and review	Unit hydrograph
15 (11-30)	EXAM #3 (Chapters 7-12) – November 24th, 2020	TBD
	FINAL EXAM IS ON Thursday, December 10th from 10:00 am – 12:45 pm	

GRADUATE STUDENT PROJECT: Please discuss with me on the first week of classes!