

Fall 9-2001

FOR 585.01: Advanced Watershed Management

Unknown

University of Montana - Missoula

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FOR 585 - ADVANCED WATERSHED MANAGEMENT
 FALL 2001 Tuesdays & Thursdays 2:00 -3:30

Week	Date	Discussion Topic	Reading
1	9/04	Introduction, Watershed Analysis	handouts; Framework
	9/06 *	Water Properties/basic physics/ hydrocycle rev.	handouts; Wohl (chap.1&2)
2	9/11	Cumulative Watershed Effects	handouts; Wohl (chap.6); Reid
	9/13		* Erosion Processes and Sediment, Forest Roads handouts; Reid
		WEPP(Intro)	
3	9/18 *	Rational runoff, Curve #'s, Culverts, Risk, TR-55	handouts, software
	9/20 *	Streamflow data sources and analysis	
		FLOWDUR, FLOOD, FLOODFRQ, WEIBULL, DMASS, HISTO	software
4	9/25	Field Trip to Marshall Canyon	
	9/27 *	W. Q. stand's, param's, monitoring SSTEMP, QUAL2E, STORET	handouts software
5			10/02 Design BMP's, SMZ's, Riparian handouts
	10/04	Stream channels - meas. and survey	handouts; Harrelson
6			10/09 * Substrates and sediment Wohl (chap.3)
	10/11	Hydrostatics and hydrodynamics XSPRO, X-SECT, MANNING, FROUDE REYNOLDS, QCALC	software; XSPRO Manual
7	10/16	Field Trip to Marshall Canyon	
	10/18	Morphology and function - <u>video</u> Thresholds - Hjultstrom, Shields, Bathurst Channel class. - Rosgen & others - <u>video</u>	handout; Wohl (chap.4)
8			10/23 Watershed Analysis Update - CWE Analysis handouts; Reid
	10/25		BASINS, IWI, NRCS protocol handouts
9	10/30	R-5, 303(d) & TMDL's, Pfankuch, Weyerhauser	handouts
10	11/01 *	Climate data sources/analysis; KOPPEN	handouts, software
			11/06 Climate data, ET models handouts, software
	11/08		* Water Yield Models - WRENSS handouts, software
11			11/13 WRENSS , Region 1 handouts
	11/15	BROOK90	(WATSED) handouts
12	11/20 *	BROOK90	software
13	11/27	WATSED/WEPP/USLE, SWAT, AGNPS, SWRRB	handouts
			11/29 PHABSIM Instream flow / fisheries / handouts, software
14	12/04	Restoration / rehabilitation	handouts
	12/06	Restoration / rehabilitation	
15	12/11	Watershed Analysis Report	
	12/13	Final Discussion	

Textbooks: Reid (1993) "Research and Cumulative Watershed Effects"
 Wohl (2000) "Mountain Rivers"

* means an assignment given.

Grade based on 20 page term paper, satisfactory completion of assignments, participation in discussion, and contribution to Watershed Analysis. **IF** I feel as though you are all "pulling your weight" in class, I may choose to not give you written exams.