

ESS 426. FLUVIAL GEOMORPHOLOGY 2008

REVISED 4/3/08

LECTURE: T TH 10:30 – 11:50

ROOM 022 JOHNSON HALL

LAB: Friday 10:30-12:20 (as necessary)

ROOM 011 JOHNSON HALL

Instructor: Nancy E. Brown, Johnson Hall 163
 <nbrune11@gmail.com> phone 616-1084
 * office hours: T TH 1:30-2:30 or by appointment

TA: Dan Morgan <djmorgan@u.washington.edu>, ATG 134; phone 543-5255
 * office hours: MW 12:30-1:30

CLASS WEB SITE: <http://courses.washington.edu/ess42608/>

*Text: *Fluvial Forms & Processes: A New Perspective; Knighton*, paperback edition)

Date	Mtg. & Lect. #	Subject	Required Reading
4/1	1 (1)	Introduction, History, and Definitions: 1	<i>Chapt. 1</i>
4/3	2 (1)	Introduction, History, and Definitions: 2	
4/8	3 (2)	Fluid Mechanics: 1	<i>Chpt. 4 p. 96-113 (1 week +)</i>
4/10	4 (2)	Fluid Mechanics: 2	
4/15	5 (2)	Fluid Mechanics: 3	
4/17	6 (3)	Sediment Transport: Mechanics	<i>Chpt. 4, p. 113-150 (1 week +)</i>

**4/19 FIELD TRIP 1: Field Methods and Roughness Determination at
Swamp Creek**

4/24	7 (3)	Sediment Transport: Bedload	
4/29	8 (3)	Sediment Transport: Bedload, Suspended Load	

5/1 Draft Report #1 due in class

5/1	9 (4)	Channel Form—The Bankfull Channel	<i>Chpt. 5 (2 weeks)</i>
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5/4 FIELD TRIP 2: Channel and Flow Interactions on North Creek

4/22	10	Review; Discussion of Field Trips and Reports	
5/6	11 (4)	Channel Form—The Bankfull Channel	
5/8	12 (4)	Channel Incision	

5/13 - Final Report #1 due in class

5/13 – Report #2 Abstract due

***5/13 – Individual Project proposals due (1 p.) (if needed) ***

5/13	13 (4)	Floodplains and Terraces	
5/15	14 (4)	Channel Patterns	

5/17 FIELD TRIP 3: Channel Migration on the Green River

5/20	15 (5)	Channel Classification	<i>Chpt. 2; Chpt. 3, p. 65-80</i>
5/22	16 (6)	Hillslope Hydrology	<i>Chpt. 2 (cont.); Chpt. 3, p. 80-95</i>

5/27 - Final Report #2 due in class

5/27 17 River History
5/29 18 Channel Response and Time *Chpt. 6*
6/3 19 River Profiles; Snoqualmie Sediment Study

*****6/5 - Final Report #3 due in class*****

*****6/5 – Individual Projects due 6/5 in class *****

6/5 20 Human Effects and River Restoration